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U.S. Department of Agriculture  
Washington, D.C.

# The Sunnyside Nursery Company



Goodell Sunnyside Strawberry

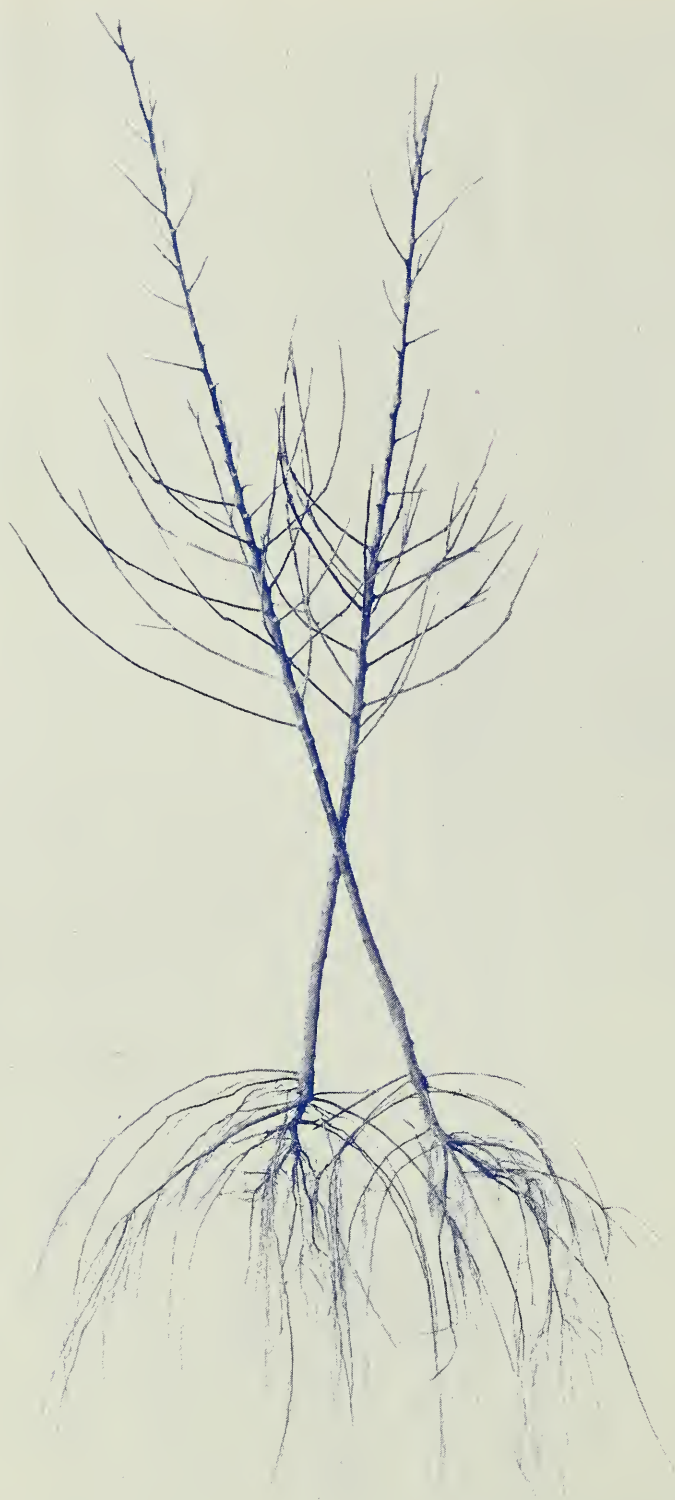
Office and Nursery  
Sunnyside, Wash.



Growers  
of  
The Best  
Fruit Trees  
in the  
Yakima  
Valley  
❧



MORE AGENTS WANTED



*Two of our one-year-old Rome Beauties. These two trees were the first and only ones taken from a field of seventy-five thousand, all of which appear to be of equal quality. Notice the remarkable root development—the trees being six feet high with roots over thirty inches long.*



Descriptive Catalogue

**THE SUNNYSIDE  
NURSERY  
COMPANY**

Growers of

**Yakima Valley  
Fruit Trees**



Nurseries and Office  
Sunnyside, Washington

# Location, Soil and Climate



FRED K. SPALDING, President

*Mr. Spalding is the founder of our company, having selected Sunnyside as the most likely location more than ten years ago, and has succeeded in making both the town and nursery famous among the growers for the production of first-class trees and shrubs*

We grow our trees entirely by irrigation in the Yakima Valley. The unusually favorable qualities of the soil and climatic conditions, combined with a long growing season, make this one of the best spots in the world for growing nursery stock. We grow as large a tree here in one season as other localities can produce in two years. Actual experience has demonstrated that the Yakima Valley one-year-old tree shows much better results when transplanted than do any of the two-year-old nursery trees. In selecting land on which to grow our stock we pay particular attention to the question of drainage. With proper drainage we have absolute control of the moisture and can supply, by irrigation, such quantities and at such times as will give the most perfect development to the trees. We shut off the water sufficiently early in the season to guarantee a perfectly matured tree.

Our nursery and offices are located at Sunnyside, in the very heart of the Yakima Valley, which is one of the greatest fruit centers in the world.

## To Our Customers

It has always been our ambition and purpose to maintain a reputation for growing and marketing the highest class of nursery stock that experience and

conscientious care can produce. It is our aim to keep our field work, our packing and our shipping so well organized that mistakes may be reduced to a minimum.

With our modern storage sheds we are in a position to **Guarantee Delivery** of any orders from October on, and during any months in the winter season, or as early in the spring as our customers may desire. This is a great advantage over the old method of heeling in where it is impossible to take the stock out of the ground in the spring until after the frost is entirely out, and we are now in excellent position to give our customers prompt attention and quick deliveries.

We use only No. 1 seedlings in our grafting. Our buds and scions are carefully selected and cut from bearing trees of tested quality by our own experienced nurserymen. We give our plants plenty of room in the rows, with the result that they have ample room for root development and a stocky tree.

We most cordially invite you to visit our nurseries. All packing is done under cover, avoiding sun, wind, frost, etc.

We will maintain a high standard of business ethics at all times and under all conditions.

**WE WILL NOT SUBSTITUTE WITHOUT TELLING YOU.** If we send you a tree similar to the one you ordered, but known by another name, we will tell you.

**GUARANTEE**—We do not intend that a single tree sold and delivered from this nursery shall prove untrue to label, but we know only too well the possibility of errors. Supplementing the horticultural laws of this state and our bond as nurserymen, we always stand ready and willing to refund the price paid for any trees that may prove untrue or we will replace such trees free of charge, or we will top work any such tree.

**TERMS OF PAYMENT**—We are doing business upon a strictly cash basis. State definitely by what route you want your trees shipped, and upon what date.

## THE SUNNYSIDE NURSERY COMPANY

F. K. SPALDING, President  
H. C. RODMAN, Vice-President

G. C. EMMERT, Vice-President  
A. B. L. GELLERMANN, Secretary-Treasurer



# Advice to Planters



AS soon as trees are received they should be heeled in so that the mellow earth will come in contact with all roots. Take out only a few at a time, as an hour's exposure to the hot sun will be almost sure to ruin them. Evergreens especially will not stand exposure, and must have the very best of care.

Fruit as a rule cannot be produced on soil that is undrained or not rich enough to produce a good corn crop.

Bruised roots should be cut smoothly so that they will heal over.

**PRUNING**—Standard trees for the orchard should be trimmed up to five or six branches, suitable to form the top; cut each of the side branches back to a bud four or five inches from the body of the tree, leaving the leader ten to twelve inches long. Dwarf Pears do not as a rule need trimming.

**PLANTING**—The ground should be well prepared and holes dug larger than necessary, so that they can be partly refilled with surface soil. The earth should be firmed very thoroughly around the roots, as it is disastrous to allow air to enter. When the hole is nearly filled in a pail of water should be thrown in to settle and wash in the soil around the roots.

Do not plant trees too deep. After the ground settles they should stand as they did in the nursery. Dwarf Pears should be planted three or four inches deeper.

**AFTER-CULTURE**—After young trees are planted do not allow grass to grow around them. Keep the ground clean and loose, at least until they are of bearing size.

**TREATMENT OF TREES THAT HAVE BEEN FROZEN IN THE PACKAGES OR RECEIVED DURING FROSTY WEATHER**—Place the packages, unopened, in a cellar or some such place, cool but free from frost, until perfectly thawed, when they can be unpacked and either planted or placed in a trench until convenient to plant. Treated thus they will not be injured by the freezing.

## Suitable Distances for Planting

Apples, Standard .....	30 to 40 feet	Grapes .....	8 to 10 feet
Apples, Dwarf .....	8 to 10 feet	Currants .....	3 to 4 feet
Pears, Standard .....	18 to 20 feet	Gooseberries .....	3 to 4 feet
Pears, Dwarf .....	10 feet	Raspberries, Red .....	3 to 4 feet
Peaches .....	16 to 18 feet	Raspberries, Black .....	4 to 5 feet
Nectarines and Apricots.....	16 to 18 feet	Blackberries .....	5 to 7 feet
Cherries, Sweet .....	18 to 20 feet	Strawberries, rows .....	1 by 3½ feet
Cherries, Sour .....	15 to 18 feet	Strawberries, in beds .....	1½ by 1½ feet
Plums .....	16 to 20 feet	Asparagus, in beds .....	1 by 1½ feet
Quinces .....	10 to 12 feet	Asparagus, in field .....	1 by 3 feet

## Table Showing Number of Trees or Plants to the Acre

	Square Method	Triangular Method		Square Method	Triangular Method
1 foot apart each way.....	43,560	50,300	12 feet apart each way.....	302	348
2 feet apart each way.....	10,890	12,575	14 feet apart each way.....	222	256
3 feet apart each way.....	4,840	5,889	15 feet apart each way.....	193	222
4 feet apart each way.....	2,722	3,143	16 feet apart each way.....	170	196
5 feet apart each way.....	1,742	2,011	18 feet apart each way.....	134	154
6 feet apart each way.....	1,210	1,397	20 feet apart each way.....	109	125
7 feet apart each way.....	888	1,025	25 feet apart each way.....	69	79
8 feet apart each way.....	680	785	30 feet apart each way.....	48	55
9 feet apart each way.....	537	620	35 feet apart each way.....	35	40
10 feet apart each way.....	435	502	40 feet apart each way.....	27	31

**RULE**—Multiply the distance in feet between the rows by the distance the plants are apart in the rows and the product will be the number of square feet for each plant or hill, which, divided into the number of feet in an acre (43,560), will give the number of plants or trees to the acre.





*A field of two-year-old Apple Stock early in May, 1912. These trees will run from five to seven feet for the fall trade. Notice the uniformity of size.*





*This field contains one million Apple Grafts. The photo was taken in July and speaks for itself. Notice the vigorous growth these grafts have made.*

## APPLES

The apple is the first fruit, both in importance and general culture. Its period, unlike that of other fruits, extends nearly or quite through the year. By a judicious selection of summer, autumn and winter sorts a constant succession can easily be obtained of this indispensable fruit for family use. Its uses are many and of inestimable value. It has been said that "Fruit is nature's own remedy." Many diseases are not known to free users of fruit. There is not a farm crop which on the average will produce one-fourth as much income per acre as will a good apple orchard. Care should be taken in making selections that will be suitable to your locality, as some of the apples are of more value in different locations than others. There is not a locality that will not produce good apples in abundance of some of the many varieties known, the list that we name here are all of the well known suitable varieties, and we can recommend them as being of first quality.

### Summer Varieties

**DUCHESS OF OLDENBURGH.** Medium, rather large, roundish, a little flattened at the ends; light red in broad stripes and splashes on yellow ground; flesh yellow, sub-acid; good for cooking; early autumn, very hardy. One of the most valuable sorts for the West.

**EARLY HARVEST.** Size medium, roundish, usually more or less oblate; bright straw color when ripe; flesh nearly white and flavor rather acid; ripens early and continues for about three weeks afterward; productive.

**RED ASTRACHAN.** Medium to large; beautifully mottled with crimson; covered with heavy bloom; tree very hardy and a popular variety; ripens in July.

**YELLOW TRANSPARENT.** Medium, round, rather conical; skin yellow, almost transparent; flesh very crisp, sub-acid and of a good quality. A very excellent early market apple, especially valuable for culinary purposes.

**RED JUNE.** Size medium, oblong, very red; flesh white, tender, juicy, sub-acid, with a sprightly, agreeable flavor; quite early and continues to ripen for four weeks, and will keep long after ripe for a summer apple; profitable for market. The tree is a fine, erect grower, very hardy, bears young and abundantly. A valuable early crop.

### Autumn Varieties

**ALEXANDER.** Very large, regular and inclined to be conical; color bright red on greenish yellow; flesh crisp, sub-acid and good; a better cooking apple than eating; tree a moderate bearer.

**FALL PIPPIN.** Very large, roundish, oblong, yellow, flesh tender and delicious; tree a free grower and a fine bearer. One of the most valuable varieties for table or market.

**FAMEUSE (Snow Apple).** An old and well-known variety; tree a moderate grower, productive, fruit medium in size, color pale greenish yellow mixed with stripes of red with splashes of same on shady side; flesh white, tender and juicy, slightly perfumed; flavor sub-acid, extra good.





*Gravenstein Apple*

#### Apples—Continued

**GRAVENSTEIN.** Rather large, roundish, slightly oblate, obtusely and obscurely ribbed, surface a little wavy; flesh tender, juicy, very rich, sub-acid or rather acid, high flavored; mid-autumn, productive, handsome, excellent. Fine in all localities.

**JEFFRIES.** Medium or rather large, round, oblate, yellow-red and deep red striped, stalk very short, slender, cavity and basin deep, flesh yellowish white, remarkably tender and juicy, flavor very pleasant.

**MAIDEN'S BLUSH.** Rather large, smooth and regular, with fine evenly shaded red cheeks on clear pale yellow ground; flesh white, fine grain, tender and sub-acid; of uniform productiveness. Valuable for the West.

**RAMBO.** Size medium, oblate and smooth, color streaked and marbled with dull yellowish red on pale yellow ground; flesh tender, rich, sub-acid and of fine flavor. Tree good grower and productive.

**TWENTY-OUNCE (Cayuga Red Streak).** Very large, nearly round; yellow, striped red; quality good; vigorous and good bearer. Popular as a market variety. November and December.

**SNOW.** (See Fameuse.)

**WEALTHY.** Fruit large, variegated, red in color; tree a good grower, flesh fine grained and sub-acid; a good flavor; begins to bear when young. One of the best to plant.

### Winter Varieties

**ARKANSAS BLACK.** A remarkably large and handsome black apple, perfectly smooth, roundish flat, lightly dotted with white, the flesh is yellow, juicy and delicious; keeps late.

**BALDWIN.** Large, roundish, skin deep red, flesh juicy, crisp and sub-acid, of a good flavor, very vigorous and productive. Is considered a fall apple in the West and South.

**BLACK BEN DAVIS.** One of the handsomest of all apples; large, solid dark red, flesh white, crisp, tender and juicy; quality excellent. Its high color and appearance makes it a valuable apple for fancy trade. Hardy and succeeds over a large territory.

**BLACK TWIG.** (See Mammoth Black Twig.)

**BISMARCK.** Very large, roundish, somewhat flattened on top, color light green with red stripes, flesh white, crisp, tender and juicy, mildly acid; a good cooking and market apple; ripens late.

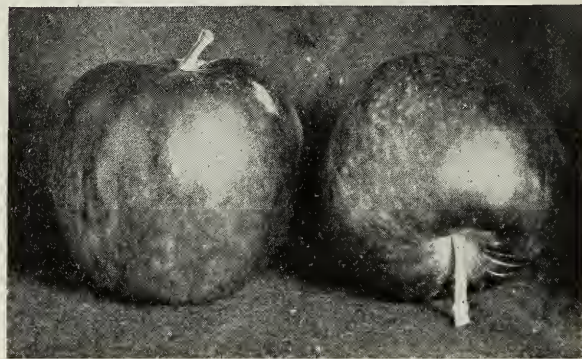
**BLUE PEARMAIN.** Large, round and conical; dark crimson, beautifully striped; flesh good, yellowish white, sub-acid; quality very good. A good dessert apple and ripens late.

**DELAWARE RED WINTER.** Large, roundish, handsomely striped with red, flesh white, sub-acid and very good. Produces moderately.

**DELICIOUS.** One of the best of the good sorts, large, somewhat conical, color a brilliant red, shading to golden yellow at the tip; flesh white, sweet and slightly acid, very fragrant, fine grained and crisp; a good keeper. Tree is strong, vigorous and very productive; a high grade commercial apple.

**GANO.** Conical, good size and smooth, deep red, shaded on sunny side to mahogany; very attractive, flesh pale yellow, fine grained, pleasant and sub-acid; is a good shipper and keeper. Tree healthy, vigorous and hardy; a prolific bearer.

**JONATHAN.** Bright red apple, highly flavored and of excellent quality; juicy, spicy and rich; splendid family sort and highly profitable as a commercial apple. For years Jonathan has been the standard of quality by which other sorts have been gauged. A seedling of the Spitzenberg, but of wider adaptability; tree is long lived, productive and an early bearer; should be planted with other sorts for cross-pollination, but this is true of all apples. Jonathan is planted largely as filler for the Yellow Newtown and Spitzenberg.



*Arkansas Black Apple*



*Wealthy Apples***Apples—Continued**

**GRIMES GOLDEN.** Medium, skin rich golden yellow, flesh white, tender, juicy with a peculiar aroma. Tree a good grower and early bearer; a very popular sort.

**HYDE KING.** A large apple, yellowish green in color, flesh crisp and sweet, sub-acid; a good quality; ripens late.

**KING OF TOMPKINS COUNTY.** Large, handsome, striped red and yellow; tree vigorous and productive; one of the best sorts.

**LADY.** A fancy dessert apple, commanding a high price; small, regular and somewhat flattened, brilliant deep red on clear yellow; flesh tender and delicious, sub-acid and good flavor; tree rather tender.

**McINTOSH RED.** A very valuable hardy sort, medium size; skin nearly dark red, flesh white, fine and very tender and juicy; a good annual bearer.

**MARSHALL OR RED BELLFLOWER.** Large oblong, color a rich bright red; flesh white and good, somewhat acid; a good bearer; a cross between Yellow Bellflower and Red June. A very good apple for the West.

**MONMOUTH PIPPIN.** Rather large, roundish and somewhat flat, color light greenish yellow, with a fine red cheek; flesh crisp, juicy and sub-acid, rich flavor; a splendid keeping apple.

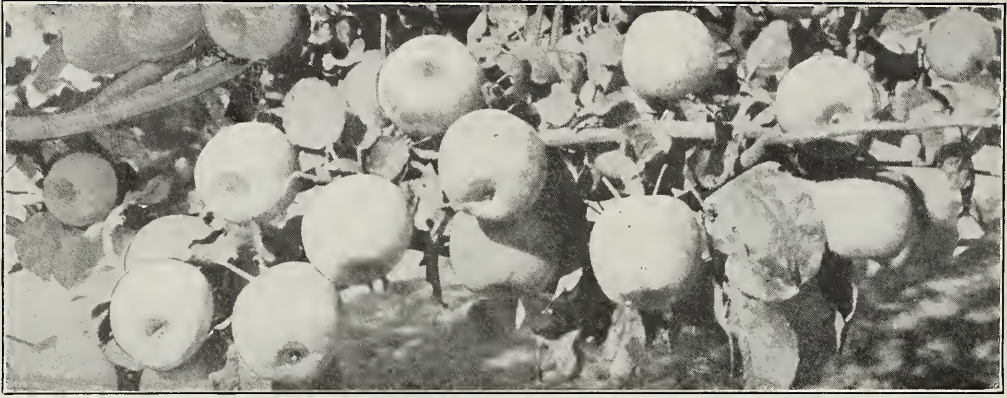
**MAMMOTH BLACK TWIG.** One of the most profitable and valuable on the market; resembles Winesap, except that it is from one-third to one-half larger.

**MISSOURI PIPPIN.** Large, rich red, with darker red stripes; very handsome and of fair quality; good grower; early and immense bearer; late keeper.

**NEWTOWN PIPPIN.** (See Yellow Newtown Pippin.)

*Spitzenberg Apples*





*Yellow Newtown Pippin Apples*

**Apples—Continued**

**NORTHERN SPY.** Large, roundish, slightly conical, somewhat ribbed and slightly striped; nearly colored with purplish red; flesh mild, tender, with a mild sub-acid, delicious flavor. Tree should be kept open by pruning so as to admit light.

**OPALESCENT.** Large size, color light, shading to very dark crimson; flesh yellowish, tender, juicy and good. Susceptible of a very high polish, reflecting objects like a mirror.

**ORTLEY.** A very fine large apple, pale yellowish, tinged with pink in the sun; flesh crisp, sub-acid, rich, fine and excellent flavor; a good dessert or cooking apple.

**PARAGON.** (See Mammoth Black Twig.)

**RED BELLFLOWER.** (See Marshall.)

**RED CHEEKED PIPPIN.** (See Monmouth Pippin.)

**RHODE ISLAND GREENING.** Large, roundish, color green, greenish-yellow flesh; tender, juicy, rich and rather acid; one of the best for cooking and dessert; vigorous and prolific.

**ROME BEAUTY.** Large, roundish, very slightly conical, mostly covered with bright red on pale yellow ground; flesh tender, not fine grained, juicy, of good quality; ripens early in winter. The large size and beautiful appearance of this Ohio apple render it popular as a winter variety.

**SPITZENBERG - ESOPHUS.** Rather large, round ovate, slightly conical, surface a high rich red, rather obscurely striped; flesh yellow, firm, crisp, spicy, rather acid, unequaled in its high, rich flavor; keeps through winter. Commands high market prices; especially prized in the West.

**STAYMAN WINESAP.** Medium to large, color greenish yellow, covered with dull red and numerous brown dots; flesh tender, yellow, firm and juicy; quality of the best.

**WINTER BANANA.** Large, a beautiful clear pale yellow with pink cheeks; has a decided banana flavor; skin thin and flesh very tender; bruises easily and not a good shipper, but a splendid dessert apple; moderately productive.

**SUTTON BEAUTY.** Large, waxen yellow, striped and shaded with crimson; very handsome; flesh white, tender and very good. A late keeper and a very profitable market variety.

**TALMAN SWEET.** Medium size, pale yellow, slightly tinged with red; firm, rich and sweet; excellent for cooking. Tree vigorous and hardy.

**VANDEVERE.** Large, somewhat flat, striped with light red on yellow; flesh greenish yellow, firm, crisp and sub-acid. A good apple and a late keeper.

**WAGENER.** Medium, oblate, obscurely ribbed; shaded and indistinctly striped with pale red and a full deep red in the sun on a warm yellow ground; often streaked with russet; flesh yellowish, fine grained, tender, compact, mild, sub-acid, aromatic, excellent; ripens through winter. Succeeds all over the West. An early bearer.

**WHITE BELLFLOWER.** (See Ortle.)

**WHITE WINTER PEARMAIN.** Medium, skin light yellowish green with a brownish cheek; flesh tender, fine grained, mild and sub-acid; of an aromatic flavor.

**WINESAP.** Large, roundish, deep red, flesh of medium quality; good keeper. Tree a fair grower and a good bearer.

**WINTERSTEIN.** An apple of high quality, but too tender for shipping; originated by Luther Burbank. Tree is vigorous and very productive, and the fruit is the very best.

**WOLF RIVER.** Very large, deep red cheek on yellow ground; strong grower and a good bearer.

**YELLOW BELLFLOWER.** Large, yellow with blush on sunny side; very tender, juicy, sub-acid and most excellent. Tree vigorous and a good bearer.

**YELLOW NEWTOWN PIPPIN.** Medium to large, roundish; color yellow; flesh very firm, crisp, juicy and delicious, sub-acid flavor. Tree a slow grower, but fruit a good keeper.

**YORK IMPERIAL.** Medium, color white, shaded with crimson; flesh firm, crisp, juicy and of a sub-acid flavor. Tree vigorous and a good bearer.



## CRAB APPLES

Within the past few years this fruit has been given much attention in the way of improvement and planting. Crab Apples succeed equally well in all sections and are valuable for cider, preserves and jellies. Some of the improved sorts are excellent for eating. Comes into bearing very young and commands a ready and profitable market. Every orchard should contain a few of these trees.

**FLORENCE.** Large, very handsome and hardy; bears early and profusely.

**GENERAL GRANT.** Quality excellent; tree an erect and vigorous grower, and bears fruit in dense clusters.

**HYSLOP.** Almost as large as Early Strawberry apple; deep crimson; very popular on account of its size, beauty and hardiness; tree vigorous.

**MARTHA.** Resembles the Transcendent, but is larger; handsome showy fruit; bears enormously.

**RED SIBERIAN.** Sometimes two inches in diameter; grows in clusters; yellow with vivid scarlet cheek; tree erect, vigorous; bears young and abundantly.

**TRANSCENDENT.** This is considered one of the most valuable varieties of crab apples grown; tree remarkably vigorous, growing to a good size and immensely productive; bears a small portion of fruit the second year from planting; fruit large, sometimes two inches in diameter; excellent for sauce, etc. The best of its class for cider, being juicy and crisp; skin yellow, striped with red. September and October.

**WHITNEY.** Large, glossy green, splashed with crimson; flesh firm, juicy, flavor very pleasant; tree a good bearer and very hardy; ripens last of August.

**YELLOW SIBERIAN.** Large and of a beautiful golden-yellow color; tree vigorous.

## PEACHES

The ease with which peach trees may be cultivated, their freedom from disease and short period before they become productive, with the immense demand for the fruit and the facility with which it may be shipped to distant markets, makes peach growing extremely profitable. To secure healthy, vigorous and thrifty trees the ground must be kept clean and mellow and receive an occasional dressing of fertilizer. It should be remembered that peaches are borne on the wood of the previous season's growth, and this makes it absolutely necessary to prune trees yearly, remove the dead branches and keep the trees in good shape to produce bearing wood.



*Early Crawford Peach*

**ADMIRAL DEWEY (F).** Skin deep orange yellow with crimson cheek; flesh clear yellow, of uniform color and texture to the stone; juicy, melting quality; ripens with Triumph. One of the best early freestones.

**ALEXANDER (C).** Medium size; skin greenish white, nearly covered with rich red; flesh melting, juicy and sweet. The tree is vigorous and productive; one of the early varieties.

**ALTON.** A large white peach with red cheek; flesh firm, melting, juicy, with a rich flavor. Tree very hardy, vigorous and prolific; ripens late in June.

**CARMEN (F).** Large, resembles Elberta in shape; creamy white with deep blush; skin rather tough, flesh tender and of fine flavor; tree prolific bearer; a profitable market variety; ripens latter part of June.

**CHAMPION (F).** Very hardy; skin nearly white with red cheek; a handsome peach; flavor is delicious, sweet and juicy; a good shipper.





*Peach Block containing over three hundred thousand first-class trees of the leading varieties. (Photo taken July 10, 1912.) Our peaches win out wherever they are planted, and the demand for them grows annually.*

#### Peaches—Continued

**CRAWFORD'S EARLY (F).** A large yellow peach of good quality; tree vigorous and productive; its even size, beauty and productiveness makes it one of the best and most popular sorts; ripens in June.

**CRAWFORD'S LATE (F).** Large, skin yellow or greenish white with pale yellow cheek; flesh yellow; tree vigorous; fairly productive; one of the best late sorts; ripens last of September.

**CROSBY (F).** One of the very best of all peaches; fine for home use or market; medium size; color orange yellow, splashed with stripes of carmine; very sweet and juicy; ripens first of September.

**ELBERTA (F).** This is probably the greatest market peach grown; perfectly hardy in the North and is believed by most extensive fruit growers to be the very best for

home use and market; color lemon yellow with blush on sunny side; flesh pale yellow and luscious; tree a prolific bearer; is also a good shipper; ripens last of July.

**FITZGERALD (F).** An improved Early Crawford; equal to it in size, quality and color; tree bears young; is productive and very hardy; very large, bright yellow, suffused with red; flesh deep yellow; ripens early in September.

**INDIAN CLING (C).** Large, color deep claret with red veins; flesh red; very juicy and sprightly; ripens last of August.

**LEMON CLING (C).** Very large and shaped like a lemon; skin bright yellow with red cheek in the sun; flesh firm, yellow, rich, with a sub-acid flavor; ripens first of August.

**MUIR (F).** Large, pale yellow; very firm; flesh white; a good drying peach.



## Peaches—Continued

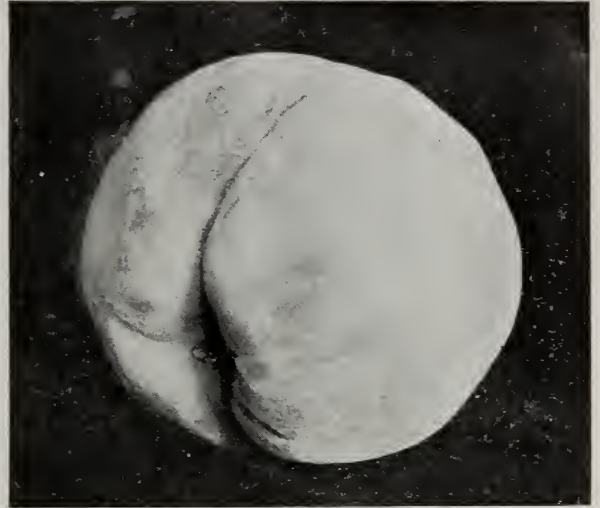
**LOVELL (F).** This is a production of California; large, almost round; flesh yellow to the pit; firm and of excellent quality; superb canning, shipping and drying peach; tree good grower and productive.

**PHILLIP'S CLING (C).** A fine large variety; yellow; flesh firm, pit small; is preferred by canners to many other varieties of cling; does not ripen until late September, when most other clings are harvested.

**SALWAY (F).** Fruit large, round, deep yellow with richly marbled bronze cheek; flesh yellow, firm, juicy; ripens late.

**SLAPPY (F).** One of the early varieties; ripens June and July; color whitish yellow with red cheek; oval in shape with long point at blossom end; one of the best early sorts.

**TRIUMPH (C).** Medium to large; skin dark orange yellow, nearly covered with dark carmine; flesh yellow nearly to the stone, where it changes to greenish white; juicy, melting and slightly sub-acid; a very attractive peach and is a good shipper; ripens middle of June.

*Elberta Peach*

**TUSCAN CLING (C).** A large yellow variety; very early; flesh juicy and of fine flavor and yellow to the stone; a good shipping and canning peach; ripens with the Early Crawford.

## PEARS

Standard Pears prefer a strong loam, but succeed well in a great variety of soils, and upon any land that will produce good crops of vegetables, corn, etc. Pears will keep longer and their flavor is improved by picking before they are fully ripe. By a careful selection of varieties the season can be extended from July to February. One of the most important points in the management of pears is to gather them at the proper time. Summer pears should be gathered at least ten days before they are ripe and autumn pears at least two weeks. Winter pears, if they will hang so long, can be left until the leaves begin to fall. Special care should be given to the following suggestions: When pear trees are heavily laden the fruit should be thinned when about one-third grown, else it will be poor and the trees injured.

*Bartlett Pear*

**BARTLETT.** Large size with a beautiful blush next to the tongue; buttery, very juicy and highly flavored; bears early

and abundantly; trees vigorous and very popular.

**CLAPP'S FAVORITE.** Very large; yellowish green to full yellow when ripe; marbled with dull red in the sun; covered with small specks; flesh melting and rich; tree vigorous and good grower; should be gathered early.

**IDAHO.** Large, nearly globular, somewhat ribbed; color light rich yellow, covered with many small dots; flesh white, fine grained, buttery and rich. September to October.

**KIEFFER'S HYBRID.** Very large; light yellow when fully ripe; sometimes has a blush; flesh white, crisp, juicy and of good quality; exceedingly valuable for cooking and canning; rarely rots at core; tree a vigorous grower and must be vigorously pruned; a regular and abundant bearer; seldom, if ever, blights. A splendid market variety.

## Pears—Continued

**Autumn Varieties**

**BUERRE CLAIRGEAU.** Very large; yellow with red cheek, nearly melting, high flavored; tree a good grower and an early and an abundant bearer. A splendid market variety. October to November.

**DOYENNE DU COMICE.** Large; yellow with a crimson and fawn cheek and russet dots; melting, rich, perfumed and luscious; tree vigorous and productive. October and November.

**FLEMISH BEAUTY.** Large and very beautiful; juicy, melting, rich and fine; strong grower and good bearer; hardy in all sections. September and October.

**WORDEN'S SECKEL.** Equal in quality to its famous parent Seckel, as luscious, more juicy and with an aroma equally rich and inviting, while in size, color, form and appearance it is decidedly superior; skin a rich yellowish brown with brownish red cheek; flesh fine grained, sweet, buttery, juicy, and one of the richest and highest flavored pears known. Very hardy and an enormous bearer.

**BUERRE BOSC.** Large, fine pear with long neck; cinnamon russet, handsome; flesh half melting, juicy, slightly perfumed and very delicious; tree fine grower and productive. One of the most valuable of autumn pears.

**BUERRE D'ANJOU.** Large, greenish, sprinkled with russet, sometimes shaded with dull crimson; flesh whitish, buttery, melting, with high rich flavor; very productive; tree vigorous.

**Winter Varieties**

**BUERRE EASTER.** Large, pale yellow, sprinkled with round dots, often with dull red cheek; quality excellent. One of the best winter pears; will keep all winter.

**WINTER BARTLETT.** Originated in Oregon; tree very vigorous and attains good height; fruit large, closely resembling the Bartlett in shape and appearance; flesh tender, juicy and melting. One of the best winter sorts.

**WINTER NELIS.** Medium in size, yellowish green and russet; fine grained, melting, rich and delicious. Tree a slender grower, but very productive; an ideal winter pear.

**PLUMS**

The Plum attains its greatest perfection on a strong clay soil, where it grows most thriftily, and suffers less from curculio and black knot. As is the case in all other fruits, it is greatly benefited by thorough cultivation. Some varieties, especially the native plums, are hardy and can stand the climate of the extreme North. Plums should be sufficiently pruned to prevent straggling growth and to prevent the head from being too crowded. They should be thoroughly cultivated and not allowed to stand in grass.

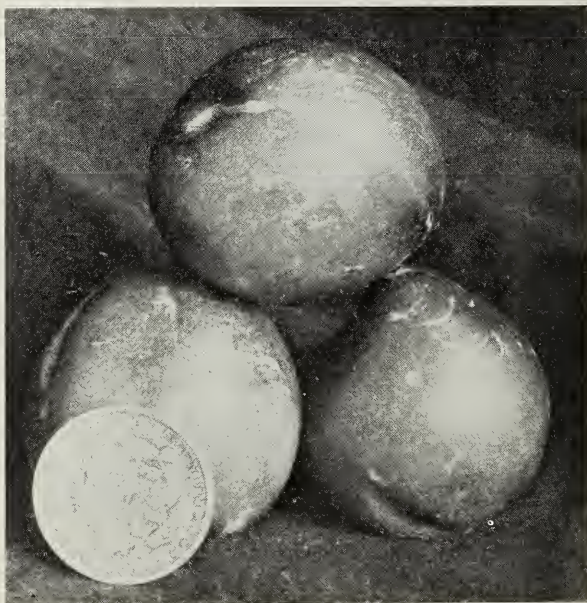
**ABUNDANCE.** One of the best Japanese plums. Tree is a very rapid grower; healthy in limb and foliage, comes into bearing remarkably young, yields abundantly; fruit is medium size, rich bright cherry red with a distinct bloom; highly perfumed; flesh light yellow, juicy and tender; ripens June and July.

**BLOOD PLUM.** (See Satsuma.)

**BRADSHAW (European).** Fruit very large, dark violet red; flesh yellowish green, juicy and pleasant; trees vigorous, erect and productive. Middle of August.

**BURBANK (Japanese).** Tree a very vigorous grower, early and very heavy bearer; fruit very large; yellowish with red cheek in the sun; flesh yellowish, firm and very sweet when fully ripe; small pit; ripens middle of June.

**CLIMAX (Japanese).** Of extra large size, high quality, delicious flavor and fragrance; it is in the lead among early shipping plums; fruit heart-shaped; deep dark red; flesh yellow; tree vigorous and very productive; ripens very early.



*Burbank Plums*





*This three-year-old Yellow Egg Plum Tree yielded seven crates of fruit this year. Careful inspection will reveal the heavy clusters of fruit. The size of the individual plums is shown in another illustration.*

#### Plums—Continued

**DAMSON (European).** Very small, oval; skin purple, covered with blue bloom; flesh melting, juicy, rather tart. September.

**GREEN GAGE (European).** Small; considered the standard of excellence; tree a moderate grower; ripens about the middle of August.

**KELSEY (Japanese).** Very large; rich reddish purple with yellow ground; tree a prolific and early bearer; a good shipper and the largest of all plums.

**PEACH (European).** Very large and handsome; dull red; good; very productive; ripens last of August.

**PRUNUS SIMONI (Japanese).** Very large, of size and appearance of a nectarine; brick red in color; flesh yellow with a peculiar aromatic flavor; considered a very good sort.

**SATSUMA (Japanese).** The tree looks much like the Wild Goose and is quite hardy; fruit is pleasant flavor; flesh red and pit is remarkably small.



## Plums—Continued

**LOMBARD (European).** Medium size, roundish, oval; violet red, juicy and pleasant and good; adheres to stone; a valuable market sort, being hardy and adapted to light soils; nearly always produces a crop; ripens last of August.

**MAYNARD (Japanese).** Originated by Luther Burbank; very large, form nearly round; a rich crimson purple, deepening to royal damask as full ripeness is reached. Tree hardy, vigorous and compact grower; flesh firm, melting and juicy; a good keeper and shipper; commands highest price in all markets.

**WASHINGTON (European).** Large, green, somewhat reddened; juicy, sweet and very fine; immensely productive; ripens last of August.

**WILD GOOSE (American).** An improved variety of the Chickasaw; tree vigorous and fruit larger; nearly as large as Green Gage; color purple with a bloom; flesh juicy, sweet and adheres to the stone; ripens last of July.



*Yellow Egg Plums from one of our three-year-old trees that yielded seven crates of fruit this year. The silver dollar affords an opportunity for honest comparison.*

**YELLOW EGG (European).** A very large and beautiful egg-shaped yellow plum, a little coarse, but excellent for cooking; tree a free grower and very productive; ripens last of August.

## PRUNES

**FELLENBERG.** (See Italian.)

**FRENCH.** (See Petite.)

**GERMAN (European).** A large, long, oval variety; much esteemed for drying; color dark purple and very agreeable flavor. September.

**HUNGARIAN (European).** Is very large, dark red, juicy and sweet; its large size, bright color, productiveness and shipping qualities render it a profitable variety for market. September.

**SUGAR (European).** Very early, large size, and owing to its high per cent of sugar is very valuable to the prune industry of the West; tree vigorous, hardy, very productive; color purple, and is an excellent shipper. August.

**ITALIAN (European).** A fine late prune; oval, purple; flesh juicy and delicious, parts from the stone; fine for drying; tree very productive. September.

**PETITE DE AGEN (French Prune, European).** A very well known variety planted extensively for drying; medium in size, a reddish purple; juicy, rich and sweet; a very productive variety. September.

**SILVER (European).** Very productive and tree a vigorous grower. On account of its large size it ranks among the most valuable prunes and drying plums. October.

**TRAGEDY.** Ripens early; valuable for Eastern shipments; medium size; skin dark purple; flesh yellowish green; very sweet and rich. July.



# CHERRIES

The Cherry thrives best on sandy soil and there attains its highest perfection. It will do well in almost any situation except a wet one. Is very ornamental, and with its delicious and refreshing fruit makes it very desirable for planting in home gardens. The Heart and Bigarreau are the good sweet cherries and are large, meaty and sweet. The Duke and Morello types do not attain so large a size, but are more hardy and less liable to injury from bursting bark, and the fruit is usually sour.

**BALDWIN.** One of the best of the Morello type; very large, round; color dark; fruit usually in pairs; flesh sub-acid and very good. Tree hardy, productive and bears early.

**BING.** New black cherry, originated in Oregon; fruit large, blackish purple; flesh very solid and flavored of the highest quality. Tree vigorous, hardy and productive; a fine shipping and market variety.

**BLACK REPUBLICAN.** Native of Oregon; fruit very large and shiny black; flesh solid and firm; a good keeper and shipper. Tree a moderate grower and very tender, but an early and profuse bearer.

**BLACK TARTARIAN.** Very large, bright purplish black, somewhat tender, juicy, very rich and of an excellent flavor. Tree a vigorous grower and productive; ripens in June.

**CENTENNIAL.** One of the new sorts; large, beautifully marbled and splashed with crimson on pale yellow ground; very sweet; has good keeping qualities which render it a good cherry for shipping; ripens late.

**ENGLISH MORELLO.** Medium to large; blackish red; rich, acid, juicy and good; very productive.

**EARLY RICHMOND.** Medium size; dark red, melting, juicy, sprightly, acid flavor. This is one of the most popular cherries and is unsurpassed for cooking purposes. Tree a slender grower and exceedingly productive; most hardy of all varieties; will stand the coldest winters.

**GOVERNOR WOOD.** Large, juicy and sweet; light yellowish with red cheek. Ripens last of June.

**KENTISH.** (See Early Richmond.)

**LAMBERT.** One of the largest known; color dark purplish red with numerous small russet dots; flesh dark purplish red with white veins, sweet, rich and of highest quality; a fine shipping variety. Tree a hardy and vigorous grower.

**LATE DUKE.** Large, heart-shaped, dark, handsome red when fully ripe; flesh light color, sub-acid, and flavor very fine. One of the last to ripen.

**LUELLING.** (See Black Republican.)



*One-year-old Lambert Cherry Tree ready for transplanting. The man holding it is six feet tall; draw your own conclusions. We call special attention to the diameter of this tree, which tells the true story of the roots that have furnished nourishment during one brief year.*

*Bing Cherries***Cherries—Continued**

**MAJOR FRANCIS.** (See Oxheart.)

**MAY DUKE.** Large, red juicy and rich; an old and excellent variety. Tree vigorous and productive. Ripens middle of June.

**MONTMORENCY LARGE.** Fruit very large and of fine flavor; color a bright, clear, shining red; ripens a week later than Early Richmond. Tree very hardy and an immense bearer.

**NAPOLEON BIGGAREAU.** (See Royal Ann.)

**OSTHEIM.** One of the hardiest; has been tested in the severest winters of Minnesota and found to be perfectly hardy; fruit large, roundish, skin red; flesh liver colored, tender, juicy and sweet.

**ROYAL ANN.** An immense cherry of the largest size, pale yellow with bright red cheek; flesh very firm, juicy and sweet. One of the best for market and canning; ripens late.

## QUINCES

The Quince is attracting a good deal of attention as a market fruit. Scarcely any fruit will pay better in the orchard. Trees are hardy and productive, easy to prune and spray. Gives regular crops and comes early into bearing. Is much sought after for canning for winter use. When put up in the proportion of about one quart of quinces to about four quarts of other fruit it imparts a delicious flavor. Will grow in any garden soil, which should be kept mellow and well enriched. Prune off all the dead and surplus branches and thin out the fruit if bearing too freely.

**APPLE OR ORANGE.** Large, roundish; bright golden yellow; cooks tender and is of very excellent flavor; valuable for preserves or flavoring. One of the most popular and extensively cultivated. October.

**CHAMPION.** Fruit very large, fair and handsome; flesh cooks as tender as an apple and without hard spots at cores; flavor delicate. Tree bears abundantly while young. One of the most valuable sorts.

**PINEAPPLE.** Originated by Luther Burbank. The name comes from the flavor, which is suggestive of the pineapple; resembles orange in form and size, but is smoother and more globular. Can be eaten raw and will cook as tender in five minutes as the best cooking apple.

**REA'S MAMMOTH.** Very large, roundish; color yellow with pinkish shades; an excellent quality. Tree a strong grower; bears well and early.





A useful and delicious fruit. In quality and abundance is between the plum and the peach, combining the qualities of both. It ripens a month or more before the best early peaches and partakes largely of their flavor. The tree is more hardy than the peach and requires about the same cultivation. Ships well and commands a good price in the Eastern markets. For drying and canning it has no superior.

**ALEXANDER.** Very hardy and immense bearer; fruit large; yellow, flecked with red; very beautiful, sweet and delicious. July.

**BLLENHEIM.** Large, oval, yellow, rich and juicy; a regular and prolific bearer; a good canning and marketing apricot. July.

**HEMSKIRK.** Large, color orange with red cheek; flesh bright orange; tender, juicy; has a rich plum-like flavor. Ripens July.

**MOORPARK.** One of the largest; color orange with a red cheek; flesh firm, juicy with a rich flavor; very productive. August.

**PEACH.** Very large and handsome, and of a delicious flavor; skin deep orange mottled with dark brown; flesh saffron yellow, juicy and high flavored. One of the best. August.

**ROYAL.** Large, somewhat oval; yellow with orange cheek, faintly tinged with red; flesh pale orange, firm and juicy with a rich vinous flavor; very productive. July.

**TILTON.** Large size, rich orange color; has a high flavor; ripens very evenly and is very productive; withstands frosts well and for drying and canning it is much superior to any of the older sorts.



*Moorpark Apricots*

## NECTARINES

Nectarines require same culture, soil and management as the peach. It may be described simply as a smooth-skinned peach. It will grow wherever peaches do, and is much superior as a dried fruit and makes excellent preserves.

**BOSTON.** Very large, handsome, deep yellow with a bright blush and mottles of red; flesh, yellow to the stone; sweet, with a pleasant and peculiar flavor. One of the most valuable for market. Freestone.

**EARLY VIOLET.** Medium size: yellowish green with a purple cheek; flesh pale

green, melting and rich and high flavored; freestone. August.

**STANWICK.** Very large; skin pale greenish white, shading into deep rich violet in the sun; flesh white, tender, juicy, rich and sugary. For drying and shipping not excelled by any other variety.

# GRAPES

Everyone should have a few grape vines in the home garden. They require very little cultivation and returns are abundant. If space is limited they can be trained on fences, over doorways and arbors. They are especially desirable for planting in city lots or gardens. To grow for market they can be planted on hillsides that are unsuitable for other crops. The soil must be well drained, and there should be a free exposure to the sun and air. By selecting varieties from early to late successions of grapes can be had for several months of the year.

## American Varieties

**BRIGHTON.** Red; resembles the Catawba in color, size and form; flesh rich, sweet and of the best quality; ripens early; vigorous and productive. In some localities is subject to mildew.

**CAMPBELL'S EARLY (Black).** A strong, vigorous, hardy sort; sometimes called the King of American Grapes; ripens early and bears abundantly; large, black, with blue bloom; flesh tender, sweet and rich. Bears abundantly and not subject to mildew.

**CATAWBA (Red).** Berries large, deep red, becoming purple when ripe; flesh pulpy, juicy, sweet and rich. One of the latest.



*Seedless Grape*

**CONCORD (Black).** This variety is too well known to need description; considered by many to be the best all-round grape grown; flesh sweet, pulpy and hangs well on the vine; hardy, vigorous and ripens early; succeeds almost anywhere.

**DELAWARE (Red).** One of the finest of the red sorts; ripens early, bunches small and compact; berries bright red with violet bloom; sweet, sugary with a musky aroma. A good market grape.

**McKINLEY'S EARLY (White).** Bunches large and compact; berries very sweet and no puckery taste in the skin; hangs well on the vines and is a good shipper; strong, vigorous grower and is a desirable grape.

**McPIKE (Black).** A new variety that is receiving high commendation everywhere. Perfectly hardy and as easily grown as Concord; ripens earlier; bunches large, even and compact; blue black, covered with a beautiful bloom; is recommended for its size, flavor, hardiness and beauty.

**MOORE'S EARLY (Black).** Bunch medium in size; berry quite large; black with heavy blue bloom; is extremely hardy and its handsome appearance renders it a popular market sort.

**MOORE'S DIAMOND (White).** Vigorous grower; free from mildew and a prolific bearer; bunches large and compact; color pale greenish white with yellow tinge when ripe; berries tender, juicy and nearly transparent; sweet and rich. Ripens about two weeks before Concord.

**NIAGARA (White).** One of the leading white sorts; bunches large, shouldered, compact; berry large, yellowish white, juicy, vinous and sprightly, skin tough, making it a good shipper and market variety.

**WORDEN (Black).** Good; seedling of the Concord; bunch large and compact; berry round, black with blue bloom; pulpy, juicy and very pleasant. Ripens several days earlier than Concord.

## Foreign Varieties

**BLACK HAMBURG (Black).** A fine tender grape, producing large, magnificent, compact bunches; berries black, very large, oblong. Especially good for table use.



**Grapes—Continued**

**FLAME TOKAY (Red).** Bunches very large and moderately compact; berries large; skin thick, pale red, covered with bloom; flesh is firm and sweet; an old standard variety, and as a table grape is more extensively planted than any other.

**MALAGA (White).** Bunches very large; fruit very large, oval, yellowish green; one of the best shipping grapes, and is also good as a raisin grape; vine strong grower and immensely productive, thriving in most any soil.

**MUSCAT OF ALEXANDER (White).** Bunches long and loose; berry oval, sometimes round; foliage green; skin thick; flesh with a decided muscat flavor. This variety is extensively planted for raisins.

**ROSE OF PERU (Black).** Bunches very large, loose; fruit round, large with firm and cracking flesh; a very handsome grape, fair quality and esteemed as a regular variety. Vine a strong grower.

**SEEDLESS SULTANA (White).** A small white grape, turning to amber; large clusters; makes a fine raisin for culinary purposes and is also a fine wine grape.

**THOMPSON'S SEEDLESS (White).** A new variety of great merit; is perfectly seedless and will doubtless become a popular sort; color greenish yellow, resembling muscat; good quality; dries rapidly and evenly; strong grower and unusually productive.

**TOKAY.** (See Flame Tokay.)

**WHITE SWEETWATER (White).** Bunches large and compact; berries medium size, round; skin thin, transparent, greenish yellow, tender, sweet and rich flavor. One of the best early grapes.

**ZINFANDEL (Purple).** Bunches large, compact; berries round and dark purple. One of the most extensively planted grapes for making claret.

## RASPBERRIES

Coming immediately after strawberries, when there is a dearth of other fresh fruits, Raspberries are equally desirable for planting in the garden for home use and in the field for market. They are easily cultivated and the season of ripening is long. They ship well, and besides the demand for immediate consumption bring good prices for drying and canning. Plant in good soil, in hills not less than four feet apart each way, with two or three plants to a hill. Cut out the old and weak shoots each year. Guard against injury in the winter by tying canes to stakes and covering with straw, or lay down in fall and cover with a few inches of earth, leaves, etc.

**CARDINAL (Red).** One of the most vigorous and productive sorts; fruit is red, rich and very highly flavored. Leading horticulturists say this berry is one of the wonders of the century.

**COLUMBIAN (Red).** Dark purplish red; very large and moderately firm; a good market berry and one of the best for canning; strong and wonderfully productive.

**CUTHBERT (Red).** Fruit very large, red, moderately firm and highly flavored; is a good market sort and very productive; entirely hardy.

**LOUDON.** Dark crimson; firm and of good quality; very productive, hardy and vigorous.

**MARLBORO.** Largest early red raspberry; beautiful bright scarlet; of good but not high quality; hardy but not productive.

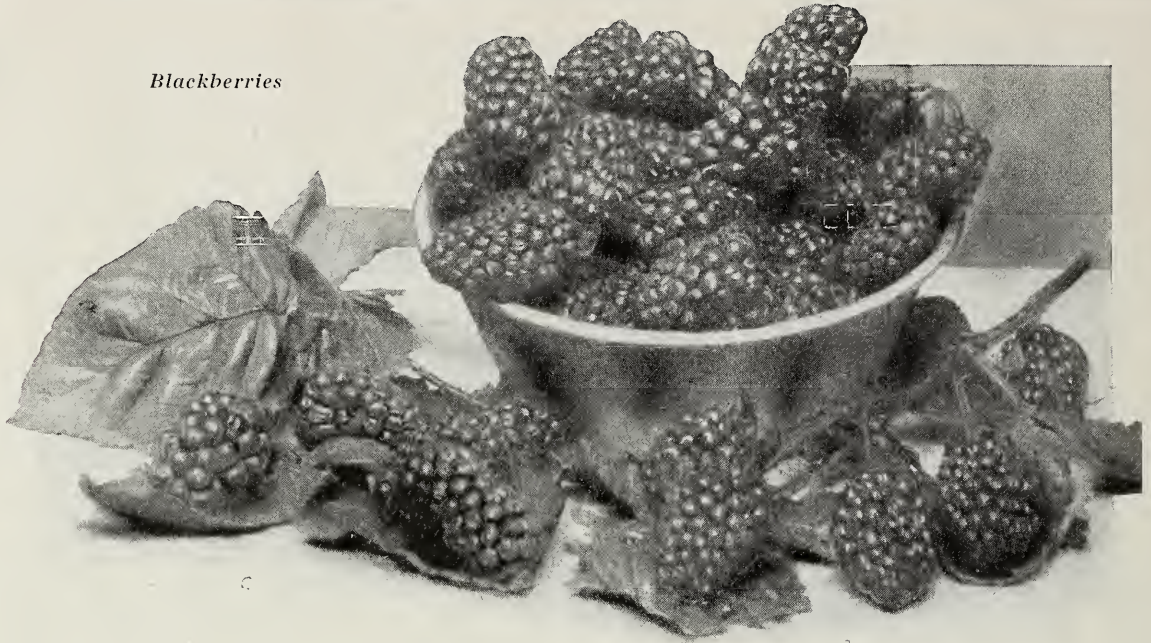
**QUEEN OF THE MARKET.** (See Cuthbert.)

## Blackcaps

**CUMBERLAND.** In size and fruit is enormously surpassing any other sort; quality very similar and fully equal to Gregg. Possessed of great firmness and will stand long shipments; bush exceedingly healthy, shooting up straight, stocky canes well adapted for supporting their loads of large fruit. Ripens mid-season.

**GREGG.** Of good size, fine quality; very productive and hardy; firm, sweet and rich. Ripens late and evenly and is a good market berry.

**KANSAS.** Large, round, firm, a strong grower and very productive; ripens early. Considered one of the best market berries on account of its handsome appearance.

*Blackberries*

## BLACKBERRIES

Blackberries are among the best known and most valued of our small fruits. No fruit of any kind is more wholesome. A liberal use of berries and other good fruit will save doctors' bills. Blackberries should be planted in rows six or seven feet apart, three to four feet in the row. Keep the ground light, rich and clean and pinch the canes back when they have reached four feet in height. The demand for blackberries is always good.

**EARLY HARVEST.** A variety of great promise; exceedingly early in ripening and always reliable; canes are strong and upright in growth; berries sweet and of the highest quality; bears abundantly.

**ERIE.** One of the very best large new blackberries; absolutely hardy, very black, firm and solid; ripens early.

**EVERGREEN.** Berries large, black, sweet, rich and delicious; it continues in bearing for a long time; commences in July and sometimes runs to November; this makes it one of the best berries for family use; can be trained over trellises or arbors.

**HIMALAYA GIANT.** One of the new berries; a vigorous grower, canes reaching thirty to forty feet; must be trained on a trellis or arbor; fruit large, black; an abundant bearer and excellent shipper.

**KITTATINNY.** Large, sometimes 1½ inches in length; glossy black; flesh moderately firm, sweet, rich and excellent; canes are vigorous and hardy; very productive. One of the best for general use.

**LAWTON.** Large, oblong, oval, black, soft and sweet when fully ripe; canes tender in severe climates. Ripens middle of August. An old and well-known sort.

**MAMMOTH.** Very vigorous grower; will sometimes grow twenty feet in a season; canes are large, deep red color; enormously productive and exceedingly early,

ripening two or three weeks earlier than other kinds; fruit very large, black, firm and sweet. One of the largest berries known.

**RATHBUN.** A strong, erect grower; hardy; fruit is sweet, luscious, without a hard core; high flavor, jet black and firm enough to ship and handle well. One of the largest sized berries.

**SNYDER.** Extremely hardy and enormously productive; juicy, sweet and of fine flavor; canes strong, upright and somewhat thorny; a standard market variety. Ripens mid-season.

## Blackberry-Raspberry

*(Hybrids)*

**LOGANBERRY (Raspberry-Blackberry).** The vine grows entirely unlike the blackberry or raspberry, trailing on the ground like the dewberry. Canes are very large; leaves resemble those of the raspberry more than the blackberry. An exceedingly strong grower and enormous bearer. Fruit it as large as the largest sized blackberry and of the same form and shape, a dark red color when ripe, and combines the flavor of both the blackberry and raspberry. Is excellent for the table, and for jellies and jams is without an equal. Fruit ripens early, being gone before the blackberries and raspberries become plentiful; is very firm and is a good shipper.



**Blackberries—Continued**

**PHENOMENAL BERRY.** A cross between California Dewberry and Cuthbert Raspberry. Mr. Burbank describes it as larger than the largest berry known; bright crimson color; very productive, and the most delicious of all berries for canning and drying; the berries grow in clusters and are produced abundantly.

**PRIMUS BERRY.** Another of the Burbank productions. One of the most productive

berries known, and is larger and more regular in shape than any other berry; enormous in size; fruit long and handsome, of a mulberry black color. Its season of ripening is earlier than either the raspberry or blackberry, following close upon the strawberry. Bushes inclined to a trailing habit and are best trained upon wires like grape vines. Somewhat of a perpetual bearer, showing fruit all summer; very hardy and a sure cropper; rather soft for long shipments.

## DEWBERRIES

This is one of the finest of its class; the fruit is highly prized as a market fruit owing to its large size and fine quality. Set the plants two feet apart in the row and cover in winter with coarse litter. Mulch the plants in spring, thus keeping them off the ground.

**LUCRETIA.** Perfectly hardy and remarkably productive; ripens early; is often one and one-half inches long by one inch in diameter; sweet, luscious and melting. Is one of the most highly recommended.

**PREMO.** Very large, jet black and good; crop ripens fast and evenly, from seven to ten days earlier than Lucretia, and is of better and firmer quality; an extra early sort.

## CURRENTS

The Currant is one of the most valued of the small fruits. They mature just before raspberries and can be used either raw or cooked. Being very hardy, they do not winter-kill and are easy of cultivation, requiring little care. One of the most valuable and useful of the small fruits. Plant in rows four feet apart each way. Keep the ground mellow, free from weeds and in good state of fertility, and prune freely every spring. If the currant worms appear dust the bushes a little with white hellebore powder when the leaves are damp. With a little care they can be made to produce enormous crops.

**BLACK CHAMPION.** Very productive; large bunch and berry; excellent quality; strong grower. A leading black sort.

**BLACK NAPLES.** Very large; rich black and tender, and excellent for jellies and wines. Very productive.

**CHERRY.** Large, deep red, rather acid; bunches short; plants erect, stout, vigorous and productive.

**FAY'S PROLIFIC.** A cross between the Cherry and Victoria. One of the most popular red currants, of large size, fine flavor and immensely prolific.

**PERFECTION.** In size and quality equals any of the tall-growing sorts. Perfectly hardy and remarkably productive; fruit ripens early and is often one and one-half inches long by one inch in diameter; rich, mild, sub-acid flavor; tender pulp and few seeds; clusters are long and size of berry is maintained to the end. A well recommended variety.

**POMONA.** Fruit of good size and flavor; bright red; has long stems and hangs in fine condition after ripening; beautiful, clear, bright and almost transparent red; comes into bearing early and is easily and cheaply picked; wonderfully prolific. A good market sort.

**VICTORIA.** A standard variety, ripening two to three weeks later than others and continues in fine condition for a long period; berries medium to large, bright red and sub-acid. One of the most valuable late varieties.

**WHITE GRAPE.** Very large, yellowish white; of a mild sub-acid flavor; excellent quality and suitable for the table; one of the finest of the white sorts; very distinct from the White Dutch, having a low-spreading habit and dark green foliage. Very productive.

**WILDER.** Clusters above medium length and berries large, bright red, of excellent quality with mild sub-acid flavor; ripens early; a standard bearer and very profitable for market; also a good keeper.

# STRAWBERRIES

First of all the small fruits comes the beautiful, wholesome Strawberry. Profits resulting from its wise cultivation will satisfy any reasonable expectation. Plant in March and April, September and October, in good soil, deeply worked and well manured with leaf mold or wood ashes. Set fifteen inches apart in rows three feet apart for field culture, and fifteen to eighteen inches each way for garden culture. Keep runners cut out and cultivate clean. Mulch late in fall and uncover early in spring, drawing about the plant to keep the fruit from coming in contact with the ground.

**GOODELL**—While visiting the Alaska-Yukon-Pacific Exposition Professor Van Deman, the noted fruit expert, called attention to a strawberry named the Goodell. It was in competition with such berries as Marshall, Clark Seedling and other standard varieties, but far outclassed them all on every point, having better flavor, sweeter, the meat a solid red to the core, with an aroma of the wild berry. In fact it has two crosses of wild berry—one of wild Alpine and one of native wild berry. I visited Mr. Goodell, the originator, several times and saw the berry growing, which convinced me that the Goodell is the greatest of all known varieties, and that Mr. Goodell is deservedly called "the Burbank of the Northwest" in strawberry culture.

We secured the exclusive right to handle this plant, and now have ready for market many thousand plants. Prices are \$1.00 per dozen or \$5.00 per hundred, delivered by mail or express free of charge.

From a small patch we marketed \$500 worth of the finest berries ever sold in our city and received from 50 cents to \$1.00 more per crate than was paid for other varieties. The yield of this variety is immense. We have planted a patch from which we expect to market \$1,500 or \$2,000 worth of berries next year.

The following statements will show how the Goodell is regarded by those who have used a large number of these berries:

Sunnyside, Washington, June 9, 1911.

THE SUNNYSIDE NURSERY COMPANY, City.

*Gentlemen:* In reply to yours in regard to the Goodell Strawberry, will say this far surpasses any berry we have ever handled, both for size and quality. The only fault we can find in handling is that it is hard for us to dispose of other varieties after our customers have tasted the Goodell. We have sold these at 50 cents to \$1.00 more per crate than was received for other berries. We would like the exclusive sale of this berry for next year.

Yours very truly,

RAY ANDREWS,  
Groceries and Feed.

June 10, 1911.

THE SUNNYSIDE NURSERY COMPANY,  
Sunnyside, Washington.

*Gentlemen:* The Goodell Strawberry that we have been buying of your company is the finest commercial berry we have ever handled, and brings 2½ cents per box more than any berry handled by us this season. For size, flavor and quality this berry is unsurpassed.

JOHN STIGERS & CO.,  
Per J. H. Stigers.

Sunnyside, Washington, June 15, 1911.

THE SUNNYSIDE NURSERY COMPANY,

Sunnyside, Washington.

*Gentlemen:* Many thanks for the fine crate of Goodell Strawberries delivered to the hotel, and wish to say that this is the finest lot of berries we have served to our patrons in years. They all pronounce the Goodell to be A 1, as it is larger, more perfect and much sweeter than other berries, and we are sure that when the public realizes the value of this berry there will be a great demand for the plants.

Yours very truly,

THE PLANTERS HOTEL,  
Per W. H. Wright, President.

Sunnyside, Washington, August 1, 1911.

Mr. F. K. SPALDING, President,

Sunnyside Nursery Company, City.

*Dear Sir:* I am very glad to say a good word for the Goodell Strawberry. My attention was attracted by a display of this berry at the Alaska-Yukon-Pacific Exposition, where the Goodell received a gold medal—the highest award given. They were pronounced by all who saw them to be the superior in every respect to any strawberry yet produced. From my own observation I can say that their flavor is the richest of any strawberry I have known; their appearance fine—their keeping and shipping qualities unexcelled, and their yield is far heavier than that of any strawberry that has been introduced into this district.

Very respectfully,

R. K. TIFFANY,  
Superintendent of Irrigation, U. S. R. S.

**EARLY HARVEST (Imp.).** A fine large berry, highly colored, very productive. Season second early.

**KLONDIKE (Per.).** An enormous yielder; rich blood red; melting, sweet. One of the best sorts.

**MAGOON.** Has proved to be a leader in hardiness, in addition to all of its other good qualities; the Magoon alone has come through the trying weather of hard winters without injury. The Magoon strawberry always brings top prices in the market and is a remarkable yielder.

## Medium Early Varieties

**ABBINGTON (Per.).** A strong growing, high colored berry; large, of excellent quality, both for home use and market. Ripens mid-season.

**CLARK'S SEEDLING (Hood River).** This is a new berry which originated in Oregon, where it is planted almost exclusively. Larger than Wilson; very firm, beautiful dark red, and in quality unsurpassed. A splendid shipping sort.





**GOODELL SUNNYSIDE STRAWBERRIES**

*This illustration shows a number of rows just planted, with irrigation water turned on them, also some one-year-old rows. The Goodell ripens a little later than the earliest varieties and continues in bearing four to six weeks, yielding more berries than any other. It lends all kinds for flavor and preserving qualities. We are exclusive propagators of this wonderful berry.*



**Strawberries—Continued**

**NEW YORK.** Very large, bright red; strong foliage and very heavy fruiter. Should have strong, rich soil.

**SENATOR DUNLAP (Per.).** Fruit of large size, regular in form, deep red, firm, and of excellent quality. Ripens early and continues in bearing nearly a month.

**Late Varieties**

**BRANDYWINE (Per.).** Fruit large, deep blood red to the center. One of the best canning berries of the late varieties.

**GLEN MARY (Per.).** Berry is extra large; crimson; flesh pinkish white and good quality. Plants strong, healthy and very productive.

## GOOSEBERRIES

This fruit is exceedingly useful for cooking, when green or ripe, and can be canned with such facility that it is beginning to be cultivated very extensively for both home use and market. Requires the same cultivation and treatment for worms as the currant.

**DOWNING.** Fruit large, round, light green with distinct veins; soft, juicy and finely flavored; bush upright and productive. One of the most valued American sorts.

**HOUGHTON.** Fruit medium in size, oval; skin smooth, thin and glossy; pale dull reddish brown, marked with faint greenish lines; flesh tender, sweet and pleasant; a vigorous grower, profuse bearer, free from mildew; easy of cultivation.

**JOSSELYN.** Large, smooth and of the best quality; a wonderful cropper and very hardy; very free from mildew.

**INDUSTRY.** One of the best English varieties; berries very large, dark red, hairy, rich and agreeable; a vigorous grower and a great producer. One of the best known and most successful varieties.

**PEARL.** A cross between Houghton and one of the large English varieties; is very hardy and entirely free from mildew; more productive than Downing and is larger. Valuable for home use and market.

**OREGON CHAMPION.** A new variety introduced from Oregon, where it originated; fruit large, round; an immense bearer and entirely free from mildew.

## ASPARAGUS

This delicious and healthy vegetable is to be found in every garden. Nothing can more easily be grown and no plant gives so healthful food for such a little outlay. Set in fall or spring with the crown of the plant about three inches below the surface of the ground, ten to twelve inches by two feet apart. A bed once made will last for years if properly attended to and well manured.

**BARR'S MAMMOTH.** Largest of all, is very early and quite tender and delicious; light color and the yield is simply enormous.

**COLUMBIAN MAMMOTH.** Produces shoots which are white and remain so as long as fit for use; is more robust and vigorous in habit and grows larger shoots than the Conover's Colossal; a splendid sort for

market gardeners and canners. Very tender and mild.

**CONOVER'S COLOSSAL.** This variety is much superior in size and quality to any of the old varieties, being remarkably tender and of very fine flavor. Valuable for market and garden.

## RHUBARB OR PIE PLANT

This very desirable vegetable comes very early in the spring. The large stems of the leaves are used for pie making and stewing. It is also valuable for medicinal purposes. A deep, rich soil is indispensable to secure large, heavy stalks. Plant in rows four feet apart with the plants three feet distant. Set so that crowns are about one inch below the surface. Top dress in fall with stable manure and fork under in the spring.

**LINNÆUS.** This is a very large variety of fine quality; early, and produces a fine, even product in cooking. One of the best of old varieties.

**MAMMOTH.** This is a very large sort; early, tender and fine flavored; stalks will sometimes reach three feet in length and more than two inches thick.



# NUT TREES

The past few years have witnessed a remarkable development in the planting of nut-bearing trees. Few farms but contain land that if planted to nut-bearing trees would pay better than anything else to which it could be devoted. The immense importation of foreign nuts every year gives some idea of the market to be supplied. Our native nut-bearing trees are admirably adapted for planting in streets, pastures, etc., for shade and ornament and profitable returns. The nuts in many cases pay better than farm crops or fruits, while most kinds are making a growth of valuable timber that will of itself pay a large per cent of the investment.

## Almonds

**HARD-SHELL.** A fine hardy variety, with large, plump kernel and very ornamental when in bloom.

**I. X. L.** Large, generally single kernels, hulls easily; soft shell. Tree a strong upright grower.

**NONPAREIL.** Large, full kernel and thin shell. Tree of a weeping habit and strong grower.

**NE PLUS ULTRA.** Similar to Nonpareil, but of different habit of growth.

## Chestnuts

**AMERICAN SWEET.** The fruit of this variety is smaller than the European kinds, but is very sweet and well flavored. Very highly esteemed.

**ITALIAN OR SPANISH.** A highly ornamental tree of free growth; valuable for its beautiful foliage and timber. The nut is sweet and generally large, but the trees being raised from seed the fruit often varies in size and quality.

**JAPAN MAMMOTH.** An extra large fruit, larger than the European and flavored like the American sweet. Tree bears when quite young.

## Walnuts

**BLACK WALNUT.** This species is a common and stately forest tree in the Middle and Western States. It grows from forty to sixty feet high; makes a fine shade and ornamental tree. Produces large crops of nuts with a rough, hard shell, containing rich, oily kernels of fine flavor.

**FRANQUETTE.** Tree is very hardy and will withstand very cold winters. A clean, vigorous grower; has never been attacked by disease; a late bloomer, thus escaping late frost. Is a regular and abundant bearer. The hull, or outside covering, is much thicker than the soft-shelled varieties, and consequently the nuts do not sunburn during hot spells when most other varieties burn very badly. The Franquette is the ideal nut for dessert and confectionery use; it is of large, uniform size, long in form, has a smooth shell of medium thickness, which makes it a safe shipper. Pale yellow in color. Meat of exquisitely rich, oily, nutty flavor.

**MAYETTE.** This is a fine dessert nut; it is quite large, well shaped, with light colored shell; kernel is full fleshed, sweet and nutty; is said to be late in budding, enabling it to escape the effect of late frosts in the spring. Is said to be a shy bearer.

# Ornamental Department

## ORNAMENTAL AND SHADE TREES

The planting of ornamental trees and shrubs to beautify and enhance the value of the home is becoming more general every year. Nothing adds to the home surroundings or produces better returns for the money invested than a few well selected varieties planted in the garden and lawn. Below we append a few suggestions on the planting, preparation of the soil and care of shrubs, trees, etc.

**WHEN TO PLANT**—Deciduous trees, shrubs and vines can be planted either in spring or fall. Spring is the best time.

**HOW TO PLANT**—Preparation of the roots. Cut off smoothly all bruised or broken roots up to the sound wood. This prevents their decaying and hastens the emission of new roots and fibres.

**PREPARATION OF THE TOP**—This consists in cutting back the top and side branches in such a way as to correspond with the more or less mutilated roots, as follows:

Trees with branching heads should have the small branches cut out clean and the larger ones, intended for the framework of the tree, cut back till within two or three buds of their base. In cases where there is an abundant root and small top or few branches, the pruning need be very light; but where the roots are small and the top heavy severe pruning will be necessary. These remarks are applicable to all deciduous trees and shrubs. Evergreens seldom require pruning, but *Arbor Vitae* and other evergreens planted in hedge rows may be advantageously shorn immediately after planting.

**PRUNING**—As practiced by some people has the effect to render trees and shrubs unnatural and inelegant. We refer to the custom of shearing trees, particularly evergreens, into cones, pyramids and other unnatural shapes. Every tree, shrub and plant has a habit of growth peculiar to itself, and this very peculiarity is one of its beauties. If we prune all trees into regular shapes we destroy their identity. The pruning knife, therefore, should be used to assist nature and handled with judgment and care; to top off straggling branches, to thin the head of a tree which has become too dense and to remove dead wood. Sometimes it becomes necessary to prune severely to keep a tree from attaining too great size.

**SHEARING**—May be practiced on hedges, but never on trees or shrubs.

**PRUNING SHRUBS**—Many persons train and shear them into regular shapes, imagining that regular outline adds to their effect and beauty. While symmetry and regularity of form are to be admired in a shrub, this quality should never be gained at the expense of health and natural grace. Each shrub has peculiarities of habit and foliage, and we should aim to preserve them as far as possible. Judicious pruning to secure health and vigor is necessary, but trimming all kinds of shrubs into one form shows a lack of appreciation for natural beauty, to say the least. *Wiegalias*, *Deutzias*, *Forsythias* and *Mock Orange* flower on the wood of the preceding year's growth, hence these shrubs should not be pruned in winter or spring, but in June, after they have finished flowering, when the old wood should be shortened or cut out, thus promoting the growth of the young wood, which is to flower the following season.

*Spireas*, *Lilacs*, *Altheas* and *Honeysuckles* may be trimmed during the winter or early spring, but the branches should only be reduced enough to keep them in good shape. The old growth should occasionally be thinned out, and the suckers and root sprouts removed when they appear. The best time, however, for pruning all shrubs is when they have done flowering.

The *Hydranga Paniculata Grandiflora* should be severely cut back and thinned early in spring.

**PRUNING EVERGREENS**—Use the knife occasionally to thicken the growth and preserve the shape. This can be done in April or May, just before the trees start to grow.



## Ornamental and Shade Trees—Continued

**Ash***Fraxinus*

**AMERICAN WHITE (F. Americana).** A well known native tree; tall, very straight, with broad round head and dense foliage.

**Beech***Fagus*

**AMERICAN (F. Ferruginea).** A large, stately native tree with smooth bark; spreading branches and symmetrical head; grows eighty to one hundred feet high. One of the handsomest trees for lawns or streets.

**PURPLE LEAVED (F. Purpuræa).** Originated in Germany; an elegant, vigorous tree, growing fifty to sixty feet high; foliage in spring is deep purple, changing to crimson in the fall.

**Birch***Betula*

**CUT - LEAVED WEEPING (Betula-Pendula Laciniata).** One of the most popular of all weeping pendulous trees; graceful weeping branches, silver white bark and delicately cut foliage. One of the most beautiful lawn trees.

**EUROPEAN WHITE (B. Alba).** Graceful tree with silver bark and spreading slender branches; quite erect when young, but after four or five years' growth assumes an elegant drooping habit, making the tree very effective in landscapes.

**Catalpa**

**CATALPA (C. Bungei).** An ornamental species, forming a dense round umbrella-like head; makes a beautiful lawn tree when grafted or budded on a long stem.

**Elm***Ulmus*

**AMERICAN WHITE (U. Americana).** Magnificent tree growing eighty to one hundred feet high, with drooping, spreading branches. One of the grandest of our native trees.

**CAMPERDOWN WEEPING (U. Scabra var. Pendula).** This forms one of the most picturesque of the drooping trees, making a large umbrella-like head, spreading many feet in every direction; a very rapid grower; leaves are large, dark green, glossy and cover the tree with a mass of verdure.

**CORK BARK (U. Racemosa).** Almost regular in form, with short, stout, twiggy branches; bark on wood two years old or older is thickly and irregularly corded; foliage is large, oval, and very handsome. A valuable picturesque species, very different from the Americana.

*Dogwood***Mulberry**

**DOWNING (Downing's Ever-Bearing).** A rapid growing tree which bears fine fruit.

**RUSSIAN (M. Alba Tartarica).** A hardy, rapid growing tree of great value, especially in the West; foliage abundant and said to be very desirable for silk worm culture; fruit good size and produced in large quantities.



## Ornamental and Shade Trees—Continued

*Clematis***Linden***Tilia*

**AMERICAN BASSWOOD** (*T. Americana*). Grows about sixty feet high; is very rapid in growth; large size, forming a broad, round-topped head; leaves broadly oval; dark green above and light green underneath; flowers are creamy white and fragrant. A splendid street or lawn tree.

**EUROPEAN** (*T. Europea*). Very fine pyramidal tree of large size, with large leaves and fragrant flowers; leaves change in the fall to beautiful tones of yellow and brown.

**Locust***Robinia*

**BLACK** (*R. Pseudo-Acacia*). A native tree of large size, rapid growth and valuable for timber as well as being ornamental; flowers large, yellowish white; very fragrant.

**Maple***Acer*

**NORWAY** (*A. Platanoides*). A native of Europe, having a large, compact body, with a broad top; green foliage. One of the most desirable species for street and lawn.

**PURPLE-LEAVED** (*A. var. Schwedleri*). Its beautiful leaves attract attention in all seasons of the year, but are especially fine in spring, when their gleaming red and purple contrasts brightly with the dark green of other trees; in mid-summer they are purplish green and in autumn golden yellow.

**SILVER** (*A. Dasycarpum*). A hardy, rapid growing native tree of large size. Valuable for producing thick shade.

**SILVER-LEAVED OR SOFT MAPLE** (*A. Dasycarpum*). A rapid growing tree of large size, irregular rounded form; foliage bright green above and silver beneath; a favorite street and park tree; attains about the same height or taller than the Norway.

**SUGAR OR HARD MAPLE** (*A. Saccharum*). A well-known native tree, valuable both for the production of sugar and wood; very desirable as an ornamental shade tree.

**WEIR'S CUT-LEAVED** (*A. var. Wierii Laciniatum*). A variety of the Silver-Leaved and one of the most beautiful, with cut or dissected foliage; rapid growth; shoots slender and drooping; ranks among the best as an attractive lawn or street tree.

**Poplar***Populus*

**CAROLINA** (*P. Monilifera*). Pyramidal in form and vigorous in growth; leaves large, glossy, deep green. Valuable for street growing on account of its rapid growth.

**EVERGREENS****Arbor Vitae***Thuja*

**AMERICAN ARBOR VITÆ** (*T. Occidentalis*). A beautiful native tree, commonly known as the white cedar. Valuable for screens and hedges.

**Japan Quince***Cydonia*

**SCARLET JAPAN QUINCE** (*C. Japonica*). One of the best flowering shrubs; flowers a bright scarlet crimson, borne in great profusion in early spring; foliage retains its color of bright glossy green the entire summer; hardy. Make good hedge plants.



## ORNAMENTAL SHRUBS

### Acacia (flowering locust)

*Robinia*

**ROSE ACACIA (R. Hispida).** A native species of spreading, irregular habit; long clusters of pea-shaped, rose-colored flowers in June and at intervals through the season; foliage a light green.

**ROSE ACACIA (R. Neo-Mexicana).** Grows five to six feet high; branches covered with stiff prickles; flowers rose color in drooping racemes.

### Althea

*Hibiscus Syriacus*

**ROSE OF SHARON.** One of the most showy and beautiful of shrubs; flowers large, double and many brilliant colors; blooms freely in August and September, when few other trees and shrubs are in blossom.

### Almond

*Amygdalus*

**PINK DOUBLE FLOWERED ALMOND (A. Flore pleno Rosea).** A vigorous, beautiful tree, covered in May with rose-colored blooms like small roses; hardy.

**WHITE DOUBLE FLOWERED ALMOND (A. Flore pleno Alaba).** Same as above except blossoms are pure white.

### Azalea

**A. MOLLIS.** A hardy species from Japan, and one of the most valuable flowering shrubs; flowers large and showy, yellow and different shades of red.

**GHENT AZALEA (A. Pontica).** Grows three to four feet high, with small hairy leaves and yellow, red and orange flowers.



*Colorado Blue Spruce*



*Peony*

### Hydrangea

**HARDY HYDRANGEA (H. Paniculata Grandiflora).** A beautiful, tall shrub with leaves of bright, shiny green; flowers borne in huge panicles from eight to ten inches long, light pink, changing to brown later in the fall; blooms in August and September; can be grown in tree form successfully and makes a very desirable lawn ornament.

**JAPANESE OR GARDEN HYDRANGEA (H. Hortensis, var. Thos. Hogg).** One of the hardiest; well adapted to pot culture and outdoor cultivation; flowers pure white; a profuse bloomer.

**WHITE FLOWERED HYDRANGEA (H. Arborescens Alba Grandiflora).** Resembles the Paniculata in general form and shape, from five to eight inches in diameter and eight to ten inches long; changing to a greenish white. One of the best.



## Ornamental Shrubs—Continued

**Lilac***Syringa*

**CHINESE TREE LILAC** (*Pekinensis*). Foliage smooth, shining green; spikes of creamy white flowers; blooms late; makes a large shrub.

**CHINESE WEeping LILAC** (*Pekinensis Pendula*). Same as above, of graceful drooping habit.

**HUNGARIAN LILAC** (*S. Josikea*). A fine distinct species of tree-like growth; dark, shining leaves and purple flowers in June. A very desirable variety.

**JAPAN TREE LILAC** (*S. Japonica*). A species from Japan, becoming a good sized tree; foliage dark, glossy green; flowers white. A late bloomer.

**PERSIAN LILAC** (*S. Persica*). Grows four to six feet high, foliage small, flowers a bright purple.

**PERSIAN WHITE LILAC** (*S. Persica* var. *Alba*). Delicate white, fragrant flowers, shaded with purple.

**PERSIAN CUT-LEAVED LILAC** (*S. Persica Laciniata*). Erect, growing with slender branches and foliage deeply cut; flowers a light purple. Late bloomer.

*Lilac**Chrysanthemum*

**PERSIAN RED LILAC** (*S. Rothomagensis*, var. *rubra*). Reddish flowers borne in panicles of great size and very abundant.

**PURPLE LILAC** (*S. Vulgaris*). The well-known purple variety; always a standard sort.

**RED LILAC** (*S. Vulgaris rubra*). Flowers a reddish violet color.

**WHITE LILAC** (*S. Vulgaris Alba*). Too well known to need description; flowers white and fragrant.

**Privet***Ligustrum*

**AMoor RIVER PRIVET** (*L. Amurense*). A valuable ornamental shrub for hedges and borders; very hardy; foliage glossy green and holds its color almost the entire year; will stand shearing to any extent.

**CALIFORNIA PRIVET** (*L. Ovalifolium*). The well-known variety; vigorous and hardy; deep glossy green; useful for hedges and borders.



## Ornamental Shrubs—Continued

**ENGLISH PRIVET** (*L. Vulgaris*). Foliage narrow; showy white flowers in June, followed by fruit.

**CHINESE PRIVET** (*L. Iboia*). A native of China and Japan; foliage long and shining; flowers large, white and fragrant; a distinct sort, valuable for its flowers and foliage.

**REGEL'S PRIVET** (*L. Regelianum*). A dense low shrub with spreading branches, pendant at the end; a very graceful bush for hedges; needs very little trimming.



*Tulips*



## HINTS ON ROSE CULTURE

**SOIL**—Roses delight in a clay loam, enriched with well rotted barnyard manure. Dig up the soil thoroughly to a depth of twelve to fifteen inches, pulverize well; do not raise the beds above the level of the surrounding soil. Soak the bed occasionally during the summer with weak manure water.

**LOCATION**—Roses delight in an open, airy situation, unshaded by trees and buildings. Always plant in solid beds and each class by itself.

**WHEN TO PLANT**—We advocate planting in the fall, in friable soil, firmly packed with the foot, but do not bruise the roots; give good soaking of water after planting. As soon as severe freezing weather sets in raise the earth around the plant three to four inches with leaves, straw or evergreen boughs, weighting the former with pieces of wood or limbs. Dormant plants set in the spring should be planted early, before growth is started. No plants suffer more by being planted late than does the rose.

**PRUNING**—This should be done during March; for hybrid perpetuals remove about one-third to one-half of the previous year's growth. Strong growing varieties require less pruning back than the weak-growing ones. In the ever-blooming class two-thirds of the previous year's growth should be removed. Cut out all old or decayed wood annually, also all feeble branches and such as are crowding each other. Some of the hybrid perpetual



varieties can be made to bloom again in the fall if pruned soon after spring blossoming time is over.

**INSECTS AND DISEASES**—It is very important to keep your plants healthy and vigorous and free from diseases and insects. If troubled with green fly spray vigorously, covering thoroughly every part of the foliage with sulpho-tobacco soap or kerosene emulsion, made by mixing two parts of kerosene with one part of sour milk. Dilute with twenty parts of soft water. Bordeaux mixture is one of the best preventives of mildew and black spots, which are fungous diseases usually caused by continuous wet weather. By careful attention the diseases and insects may be kept down, and plants will reward you with their beautiful blooms and foliage.

**ABBREVIATIONS USED:** H. P., Hybrid Perpetuals—vigorous, hardy roses, flowering in spring and fall—requires less care and attention than other classes; H. T., Hybrid Teas—more vigorous growers, free-flowering and fine colors; T., Tea or Ever-blooming Roses, less vigorous and more tender, but giving finest of flowers; Poly., Polyantha, fine class of climbing or pillar roses; Noi., Noisette, rather tender, fine foliage and flowers usually in clusters. Gold Medal, the highest award of merit, given by the National Rose Society of England.

**AMERICAN BEAUTY, H. P.** Rosy crimson, large, fragrant.

**ANNA de DIESBACH, H. P.** Brilliant carmine rose.

**ARD'S PILLAR, H. T. Climbing.** Rich, velvety crimson, full flower. Comparatively new; very good.

**ARD'S ROVER, H. T. Climbing.** Crimson, shaded maroon, fine foliage. Excellent for button-holes.

**AUGUSTINE GUINOISSEAU, H. T.** Color white, slightly tinged blush (White La France).

**AVOCA, H. T. Gold Medal.** Vigorous, crimson scarlet; buds long and pointed. Superb; fragrant.

**BARBAROSSA, H. P.** Pure carmine red, flowers large and full. Called Red Frau Karl Druschki. New.

**BARON de BONSTETTIN, H. P.** Dark crimson, large, full.

**BARONESS ROTHSCHILD, H. P.** Beautiful clear pink.

**BEAUTY OF GLAZENWOOD, Noi. Climbing (Fortune's Yellow).** Orange yellow, shaded carmine. Vigorous.

**BELLE SIEBRECHT, H. T.** Brilliant, rich, deep pink.

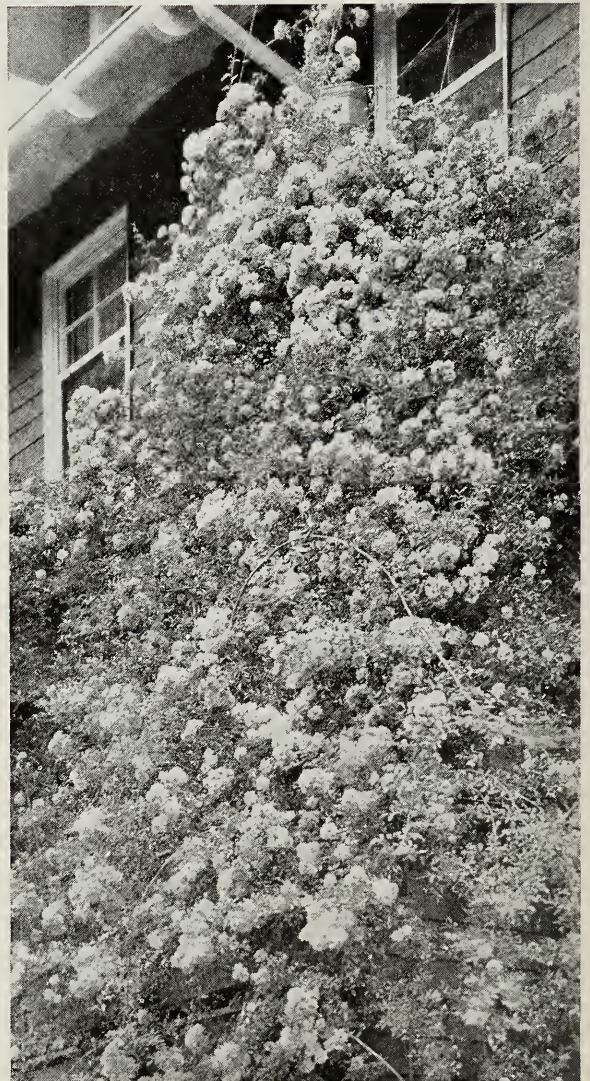
**BESSIE BROWN, H. T.** Large, full flower, creamy white, free-flowering and vigorous. Gold Medal. Good.

**BETTY, H. T. (Gold Medal).** Coppery rose with golden yellow; large, fairly full, long buds. Fragrant.

**BLACK PRINCE, H. P.** Deep, dark crimson, richly shaded, vigorous, richly perfumed. An old favorite.

**BON SILENE, T.** Deep rose, good buds.

**BRIDE, THE, T.** Delicate ivory white.



*Climbing Rose*



## Roses—Continued

- BRIDESMAID, T.** Clear pink, nice buds.
- CAPTAIN CHRISTY, H. P.** Crimson carmine, large, fragrant.
- CARDINAL PATRIZZI, H. P.** Medium size, full flower, dazzling red, shaded with purplish brown. Vigorous.
- CATHERINE MARMET, T.** Pale flesh color. Free bloomer.
- CELINE FORESTIER, Noi.** Climbing. Bright yellow with deeper center, full, well formed.
- CHERRY RIPE, H. T.** Cherry crimson, fragrant; medium size; full, floriferous. Still scarce.
- COLONEL LECLERC, H. T.** Cherry red, large, fairly full; upright growth, free and perpetual. New.
- COMTESSE de FRIGNEUSE, T.** Large, full; fine elongated bud; color fine, bright canary yellow. Good.
- COMTESSE RIZA du PARC, T.** Coppery yellow, purged crimson.
- CORNELIA COOK, T.** Creamy white; fine buds.
- CRIMSON RAMBLER, Poly.** Climbing. Free growing with large clusters of crimson flowers. Favorite.
- CLIMBING BELLE SIEBRECHT, H. T.** Brilliant deep pink; one of the best large flowering climbers.
- CLIMBING DEVONIENSIS, T.** Creamy white, large, full.
- CLIMBING GLORIE de DIJON, T.** Buff, orange center; hardiest of Tea Roses; long blooming season. Very fragrant; good as climbers or bush.
- CLIMBING METEOR, H. T.** Deep, rich red; fine variety.
- CLIMBING PERLE des JARDINES, T.** Fine golden yellow.
- CLIMBING SAFRANO, Noi.** Deep yellow, sometimes coppery; vigorous; earliest to blossom. Favorite.
- CLIMBING MAD. CAROLINE TESTOUT, H. T.** Bright satiny rose.
- DR. GRILL, T.** Coppery yellow, tinged China pink.
- DORA, H. T.** Comparatively new; has been greatly admired in nursery. Peach blossom to silvery blush. Large, full, free flowering.
- DOROTHY PAGE ROBERTS, H. T.** Coppery pink, suffused apricot yellow; petals very large. Vigorous and of wonderful charm. Gold Medal.
- DOROTHY PERKINS, Wich.** Climbing. Probably our best climber; vigorous; foliage small, glossy green, hanging very late. Flowers beautiful: hell pink in large clusters. It is often erroneously called for as Pink Rambler.



- EMPEREUR du MAROC, H. P.** Very large, full flower, deep red, shaded purple. Hardy, vigorous, fine.
- ETOILE de FRANCE, H. T.** One of the best red roses introduced for many years. Blooms are large, petals good substance and cupped form; very full and opening freely. Superb color, velvety crimson, center vivid cerise; very fragrant.
- FISHER HOLMES, H. P.** Old-time favorite. Lively crimson.
- FLORENCE PEMBERTON, H. T.** Gold Medal. Large, full flowers, perfectly formed, creamy white with suffused pink. Free blooming.
- FRANCESKA KRUGER, T.** Coppery yellow, shaded with peach.
- FRANCOIS CROUSSE, T.** Climbing. Fills a long-felt want in fine red climbers. Large, full flowers, well formed; bright crimson, sometimes fiery red; produced in abundance.
- FRAU KARL DRUSCHKI, H. P.** Often called Snow Queen; it is the best pure white rose grown. Flowers very large, beautiful pure silvery white with very deep bud. Universally admired.

## Roses—Continued

- FRANZ DEEGAN, H. T.** One of the best yellow roses. A moderate grower, erect habit. Flowers medium, fragrant, of very effective pale yellow with center golden yellow. Favorite.
- FREIHERR von MARSCHALL, T.** Red Tea Roses of real merit are scarce at best, but this seems to satisfy every demand. Color dark carmine, with long pointed buds, opening to large, full blooms of great substance. Strong plants.
- GEN. JACQUEMINOT, H. P.** Glowing scarlet crimson; large and fine. An old favorite.
- GEN. McARTHUR, H. T.** Large, full flower, well formed; dark velvety crimson. Vigorous and floriferous.
- GLOIRE de MARGOTTIN, H. P.** Red, almost scarlet; full, perfect form. Vigorous as bush or pillar.
- GLOIRE LYONNAISE, H. T.** Pale lemon yellow, tinted with pure white. Moderate, but beautiful.
- GOLDEN GATE, T.** Creamy white, center soft yellow shaded. Long pointed buds. A fine rose.
- GOLD OF OPHIR, N.** Climbing. Apricot yellow. Good.
- GRACE DARLING, H. T.** Large, full flower, well formed; color creamy white, tinted and shaded with peach. Free blooming and vigorous. Valuable.
- GRUSS an TEPLITZ, H. T.** Probably the best red garden rose. Richest crimson scarlet; very free flowering throughout the spring and summer; very fragrant, with fine foliage; also very strong grower, making it especially valuable for massing and hedges.
- GUSTAVE REGIS, H. T.** Canary yellow with deeper center and beautiful long buds.
- HARRY KIRK, T.** Gold Medal. Deep sulphur yellow; full, fine buds. Exceptionally fine.
- HON. INA BINGHAM, H. T.** A fine rose of Killarney type. Distinct color, pure pink, deeply veinated; flowers semi-double, enormous petals.
- HUGH DICKSON, H. P.** Gold Medal. Also named as best red rose in existence; large flowers, very full and well formed, opening well in all weathers; color brilliant crimson, shaded scarlet, very free flowering and vigorous. A rose of great beauty and utility.
- J. B. CLARK, H. T.** Gold Medal. Another exceptionally good red rose; very large flower, finely formed; full, with high pointed center; color intense deep scarlet, heavily shaded with blackish crimson.
- JEAN NOTE, H. T.** A new rose of great merit. Beautiful chrome yellow, changing to pale creamy white; flowers large, well formed.
- JULES MARGOTTIN, H. P.** Superb cerise red. Hardy. Good.
- KAISERIN AUGUSTA VICTORIA, H. T.** One of the best. Vigorous, free bloomer, good form, fragrant; color beautiful clear white, tinted yellow.
- KILLARNEY, H. T.** The great Irish Rose and a favorite wherever planted. Robust grower, extremely long buds, large petals of great substance, making it lasting and fine for cut flowers; color bright carmine pink, marbled in creamy white. A favorite with florists.
- LADY ASHTOWN, H. T.** Fine long pointed buds, very large full flower, carried on good stiff stems; large petals; color pale rose, shaded with yellow, reflexed silvery. A valuable rose.
- LADY BATTERSEA, H. T.** Deep cherry crimson, fine buds.
- LA FRANCE, H. T.** Delicate silvery rose; large, fine.
- LAURENT CARLE, H. T.** Deep clear red, beautifully formed, large and full. Splendid habit; vigorous.
- LIBERTY, H. T.** Rich velvety crimson; free flowering.
- LYON ROSE, H. P.** One of the greatest roses ever introduced. A vigorous upright bush with fine foliage; buds large and long, round shape; coral red color. Blooms very large, broad petals, full globular form, superb color; petals shrimp pink at end, salmon red center, yellow base. No collection is complete without this variety.
- MABEL MORRISON, H. P.** Pure white; an old favorite.
- MAD. ABEL CHATENAY, H. T.** Bright rosy carmine salmon, shaded vermilion. An extra good rose.
- MAD. ALFRED CARRIER, Noi.** Climbing. White flesh, tinted and cream; free grower; floriferous.
- MAD. CAROLINE TESTOUT, H. T.** The official PORTLAND ROSE. Very large, globular flower; color bright satiny pink, darker center, edges of petals bordered with soft carmine pink; exceedingly free flowering and vigorous. A favorite and valuable variety; does well everywhere; equally good as a single specimen bush, for massing or for hedges.
- MAD. GABRIEL LUIZET, H. P.** Light silvery pink. Good.
- MAD. HOSTE, T.** Long buds; pale lemon yellow, deeper center.
- MAD. LEON PAIN, H. T.** Silvery salmon, center orange yellow; large, full, well formed. Very free flowering and extra good in all ways.
- MAD. MELANIE SOUPERT, H. T.** One of best exhibition or garden roses; vigorous, free flowering; salmon yellow, suffused carmine; large, full and fine. Beautiful and distinct.



## Roses—Continued

- MAD. RAVARY, H. T.** Beautiful orange yellow, medium size, fine buds; vigorous. A fine rose.
- MAGNA CHARTA, H. P.** Bright pink, suffused with carmine.
- MARIE VAN HOUTTE, T.** Canary yellow, tipped with bright rose. A general favorite; always good.
- MAD. SEGOND WEBER, H. T.** Rosy salmon, large, perfect form, with an ideal pointed bud which expands to a perfect flower of immense size. Its color is very distinct and fine. Can be recommended as one of best roses of recent introduction.
- MAMAN COCHET, Pink. T.** Clear pink, changing to silvery rose. Large, full flower, free blooming. A favorite and very beautiful rose.
- MAMAN COCHET, White T.** A large, fine full flower; creamy white, tinged with soft blush. One of our best roses; satisfactory in every respect.
- MAMAN COCHET, Red T.** Bright cherry red.
- MARECHAL NEIL, T.** Climber. Rich golden yellow.
- MILDRED GRANT, H. T. Gold Medal.** Ivory white with a faint flush of pale rose; highly pointed center with large petals, opening to perfectly formed flowers of enormous size and substance. A splendid exhibition rose.
- MARQUIS de QUERHONT, T.** High colors of copper salmon and golden yellow, beautifully blended. Nice buds, which develop in exquisite wavy blooms. Foliage and growth good.
- METEOR, H. T.** Velvety, glowing crimson, free flowering.
- MISS KATE MOULTON, H. T.** Lovely salmon pink, delicately shaded dark pink. Fine buds. Extra good.
- MOSS, CRIMSON.** Dark carmine-red Moss Rose.
- MOSS, PINK.** Clear cherry-pink Moss Rose.
- MOSS, WHITE.** White flowers in clusters.
- MRS. AARON WARD, H. T.** Deep rich Indian yellow, often tinted salmon. A constant bloomer with buds and blooms of refined form and finish. A new and sterling variety.
- MRS. ARTHUR ROBERT WADDELL, H. T.** Rosy scarlet bud, opening reddish salmon; reverse of petals rosy scarlet, semi-double; very lovely.
- MRS. B. R. CANT, T. Gold Medal.** A beautiful, free-flowering rose; rich pink, reverse petals darker.
- MRS. DAVID JARDINE, H. T.** A superb English introduction; flowers large, perfect form; bright rosy pink, shading in outer petals to salmon pink; highly perfumed.
- MRS. HAROLD BROCKLEBANK, H. T.** A superb rose, greatly admired by those who have seen it in the nursery. Creamy white, center buff. Petals orange at base, reverse tinted salmon. Good size, full, perfect form, fragrant.
- MRS. JOHN LAING, H. P.** Soft pink, large and fine form; free bloomer; fragrant; hardy. Favorite.
- MRS. R. G. S. CRAWFORD, H. P.** Rosy pink; fine, satisfactory.
- MRS. STEWART CLARKE, H. T. Gold Medal.** Cherry pink, white base. A satisfactory rose of good size and substance.
- PAPA GONTIER, T.** Brilliant carmine, changing to rose; fine long buds; very attractive.
- PAUL NEYRON, H. P.** An old-time favorite. Deep rose, enormous size, vigorous grower. Good.
- PERLE des JARDINS, T.** Golden yellow; one of the best.
- PHARISAER, T.** Rosy white, beautiful buds and flowers.
- PRINCE CAMILLE de ROHAN, H. P.** Very dark velvety crimson, large full flower; fragrant. We have a fine stock of this well known and beautiful old-time favorite.
- QUEEN OF SPAIN, H. T.** Deep flesh white, large, good.
- RAINBOW, IMPROVED, T.** A sport from Papa Gontier, which it resembles in all except color, which is clear pink, striped with carmine.
- REINE MARIE HENRIETTA, H. T. Climber.** A vigorous, good climber, deep cherry red.
- REV. DAVID R. WILLIAMSON, H. T.** Dark velvety crimson, shaded maroon. Flowers large, good substance.
- REVE d'OR.** (See Climbing Safrano.)
- RICHMOND, H. T.** Deep scarlet red, constant bloomer.
- SAFRANO, T.** Apricot yellow, free bloomer, long buds.
- SHIRLEY HIBBERT, T.** Medium size, full flower, nankeen salmon yellow and buff. Vigorous. Good.
- SOLIEL d'OR (Aust. Briar).** Flowers large globular, varying in color from gold to reddish gold, shaded with nasturtium red. Striking.
- SOUVENIR CATHERINE GUILLOT, T.** Long pointed buds, full, well formed flower; color ranging from carmine nasturtium red on deep orange to coppery red. Vigorous and free. Recommended by its superb coloring.
- SOU. PIERRE NOTTING, T.** Apricot yellow, suffused orange.
- SOU. PRES. CARNOT, H. T.** Delicate rosy flesh, shaded deeper at center. A fine rose.

## Roses—Continued

**SUNSET, T.** Deep apricot yellow; vigorous, free.

**ULRICH BRUNNER, H. P.** Extra strong grower, almost thornless. Cherry red, flamed scarlet, long stems. A very satisfactory and good rose.

**WILLIAM SHEAN, H. T.** Gold Medal. Pink with ochre veins.

**WM. ALLEN RICHARDSON, Noi.** Climber. Coppery yellow, flushed with carmine. Beautiful, distinct.

**WM. R. SMYTHE, T.** White, tinged blush, large, full, very free. A good rose, recently introduced.

**W. E. LIPPIAT, H. T.** A vigorous, attractive rose of brilliant velvety crimson, shaded maroon.

**WHITE DOROTHY, Wich.** Climbing. A new introduction, described as "a pure white sport from Dorothy Perkins, having all the fine qualities of that charming variety."

**WHITE RAMBLER, Poly.** Pure white; flowers in clusters.

**XAVIER OLIBO, H. P.** Dark maroon red, velvety and rich. The blackest rose known.

**YELLOW RAMBLER, Poly.** A clear yellow.

## Unnamed Varieties

In handling large quantities of rose bushes labels are occasionally lost or broken, making it impossible to offer them under their proper names and classes. They are all good plants, none under two years, field grown, that will flower the first season, and are of good varieties; oftentimes new or high priced kinds are among them. We can combine them so that each dozen will contain not less than four different varieties, usually more. There is nothing cull about them, simply unnamed. For those who are not particular about having their roses named, but simply want some good roses for their own pleasure this collection is recommended.

## Standard or Tree Roses

Many planters prefer roses grown in tree form. Not all varieties are successful, but the following have given good results. A number of other varieties can be supplied in small quantity. If variety desired is not listed kindly inquire.

**AFLRED COLOMB.** Bright cherry red.

**BABY RAMBLER.** Bright crimson, in clusters.

**BARONESS ROTHSCHILD.** Deep flesh color.

**CAPTAIN HAYWARD.** Crimson carmine.

**CRIMSON RAMBLER.** Crimson, flowers in clusters. Weeping.

**ETOILE de FRANCE.** Bright velvety crimson.

**FRAU KARL DRUSCHKI.** Beautiful pure white. Best.

**GENERAL JACQUEMINOT.** Glowing scarlet crimson.

**GLOIRE d'DIJON.** Creamy white and blush. Weeping.

**GRUSS an TEPLITZ.** Rich crimson scarlet.

**HUGH DICKSON.** Brilliant scarlet.

**J. B. CLARK.** Rich dark crimson.

**LYON ROSE.** Coral red and yellow tones. \$2 each.

**MAD. ABEL CHATENAY.** Bright rosy carmine salmon.

**MAD. CAROLINE TESTOUT.** Bright satiny pink. Best.

**MAD. JULES GROLEZ.** Bright beautiful pink.

**MAGNA CHARTA.** Bright pink, suffused carmine.

**MRS. JOHN LAING.** Soft pink.

**PRINCE CAMILLE de ROHAN.** Very dark crimson.

**ULRICH BRUNNER.** Bright cherry red, flamed scarlet. Best.



# Spraying Calendar and Formulas

There is no spraying that will cure everything. Use the ones that fit your case. For information about insect pests, plant diseases and spraying, write to the Botanist or Entomologist of the Experiment Station in your state.

<i>When to Spray</i>	<i>What to Use</i>	<i>What to Spray For</i>	<i>Notes</i>
<b>FALL</b> Just after the leaves fall. Especially for Western Washington.	Sulphur-lime 3° Beaume	Apple cankers.  Scale insects. Eggs of green aphid and red spider. Pear leaf blister mite. Woolly aphid. Eggs of tent caterpillar. Moss and lichens. Rabbits and field mice.	This spraying may be preceded by a spraying of bordeaux as soon as crop is picked; for canker only.  Write for bulletin on sulphur-lime spraying.
<b>WINTER</b> While buds are swelling. Usual spraying where there is no canker.	Sulphur-lime 3° Beaume	Bud moth; twig borer; peach-leaf curl.  Scale insects. Eggs of green aphid and red spider. Pear leaf blister mite. Woolly aphid. Rabbits and field mice. Mildew.	Too early spraying will miss these.  Write for bulletin on sulphur-lime spraying.
<b>SPRING</b> (1) When flower buds are ready to open. (2) While last blossoms are falling.	Sulphur-lime	Apple scab. New York apple canker. Prune brown rot or fruit mold.	Spray when central flower of cluster is about to open.
	Lead arsenate 1 lb. to 50 gallons	Codling moth. Bud moth; twig borer. Caterpillars.	Use a bordeaux nozzle with a crook and spray with force from raised platform directly into every flower. Repeat immediately. If so applied, these sprayings are sufficient. Keep a few trees banded. If many worms are trapped, spray. Write for codling moth bulletin.
	Sulphur-lime 1.5° Beaume	Apple scab. New York apple canker.	Not advisable to mix with arsenate of lead. Omit if there is little scab.
<b>SUMMER</b> When the pest appears.	Tobacco (or kerosene emulsion)	Aphid (cherry aphid, etc.) Woolly aphid on branches. Red spider. Oyster shell bark louse. Leaf hopper.	About June 15 for newly hatched young. Spray early before they acquire wings.
	Lead arsenate	Pear and cherry slug.	Use 1 pound to 75 gallons. Or dust with lime, ashes or road dust. Use 1 pound to 40 gallons.
	Sulphur-lime 1.5° Beaume	Caterpillars. Colorado potato beetle. Fruit spot (Baldwin spot; punk rot). Mildew. Red spider; young of oyster shell louse.	Early in July. (Treatment in the experimental stage.)
	As a strong wash Bordeaux	Trunk borer; flat head borer. Flea beetles. Cutworms. Grasshoppers. Potato blight.	Keep trunk coated all summer; best to add excess lime. As a repellent.
			July 1 to 15; repeat in two weeks. If much blight near by, give third application two or three weeks later.
	<i>What to Spray For</i>	<i>Notes</i>	
<i>Pests controlled by other remedies than spraying</i>	Pear blight (fire blight of pear and apple).	Prune out every sign of blight, cutting well below the disease. Swab every cut with corrosive sublimate (1 to 1,000 of water). Clean the tool often with carbolic acid, or you will spread the blight with each cut.	
	Western tomato blight.	Set out strong plants close together, or plant the seed thickly in the rows. Give best of care, shade and plenty of water. You will probably lessen the blight.	
	Potato scab.	Soak seed for two hours in formalin (1 lb. to 30 gallons of water), then cut and plant. Do not plant in soil where scabby potatoes were grown.	
	Smut of wheat and oats.	Spray seed thoroughly with formalin (1 lb. to 45 gallons of water); cover and let lie in a pile two hours; dry and plant with a clean seeder.	

## Spraying Calendar and Formulas—Continued

	What to Spray For	Notes
<i>Pests Controlled by other remedies than spraying</i>	Root maggot of radish, turnip, cabbage, etc.	Spray soil with carbolated lime before maggots appear. Repeat often. Cultivate well after crop is removed. Place a 3-inch tarred paper collar on young cabbage plants.
	Cabbage worms.	Paris green 1 part, bran 40 parts. Mix well. Dust the plants before worms eat in.
	Climbing cutworms. Garden cutworms.	Paris green 1 part, bran 40 parts. Make a mash by adding water. Season with a little molasses, stale beer or salt. Scatter by spoonfuls before planting or among plants.
	Woolly aphid on roots.	Expose the roots as much as practicable and spray with tobacco, kerosene emulsion or sulphur-lime. Root treatment is not completely reliable.
		To every ounce of pure potassium cyanide (poison) add 1½ liquid ounces sulphuric acid diluted with 2½ ounces water. The gas generated is extremely poisonous. Fumigate 30 to 45 minutes.
<i>Fumigation for insects</i>	For nursery stock, use 1 oz. cyanide to 100 cu. ft. For grafts and scions, use ¾ oz. cyanide to 100 cu. ft.	

### HOW TO SPRAY

Spray thoroughly. Direct your attention to the hardest places to reach. Cover every surface. Wet behind the buds. Reach the bottom of every crack. Fill the lower calyx cup. Do not try to economize on spray. For all orchard spraying use a high-pressure pump (at least 200 pounds). Use bordeaux nozzles only. Use an eight-foot spray rod. Have a crook to set the nozzles at an angle of 45 degrees. Spray from a tower if trees are beyond your reach.

### SULPHUR-LIME

Sulphur ..... 1 pound  
Fresh stone lime.....½ pound  
Water .....½ gallon

Slake the lime in the cooker. Add the sulphur and the water. Boil briskly till the sulphur is dissolved (about 45 minutes), stirring continuously and keeping the cooker covered. As it boils down keep adding water. When finished let settle. Use only the clear liquid, which may be stored if kept from the air. Prepared in this way, sulphur-lime should have a hydrometer reading of about 26 degrees, a little weaker than the factory-made product.

For use, any concentrated sulphur-lime may be diluted according to the following table:

HYDROMETER TEST OF CONCENTRATE		TO MAKE DILUTE SPRAY	
Beaume degrees	Specific gravity	Beaume, 3° Sp. gr. 1.02 1 lb. sulphur in 5 gals.	Beaume, 1.5° Sp. gr. 1.01 1 lb. sulphur in 10 gals.
34	1.302	1—14 water	1—28 water
32	1.279	13	26
30	1.259	12	24
28	1.236	11	22
26	1.215	10	20
24	1.196	9	18
20	1.158	7	14
16	1.122	6	11

### CARBOLATED LIME

Lime .....10 pounds  
Water .....50 gallons  
Carbolic acid.....1 pint or more

Slake the lime with a little water, add rest of the water and the carbolic acid.

### ARSENATE OF LEAD

Arsenate of lead (poison)..... 1 pound  
Water .....50 gallons

For newly hatched insects it is not necessary to use it stronger. Mix well first with a small amount of water. Powdered arsenate of lead is about twice as strong as the paste. Do not use arsenate that settles quickly.

### BORDEAUX

Bluestone ..... 6 pounds  
Good lime ..... 4 pounds  
Water .....50 gallons

Dissolve the bluestone by suspending it in a sack in 25 gallons of water in a barrel. Slake the lime in another vessel, adding a little water slowly, and dilute to 25 gallons. Mix the two thoroughly. Even the best bordeaux may scorch in rainy weather.

For double strength bordeaux use twice as much bluestone and lime.

### KEROSENE EMULSION

Kerosene ..... 2 gallons  
Whale-oil soap .....½ pound  
Water ..... 1 gallon

Dissolve the soap in the water by boiling, and add the suds boiling hot to the kerosene, away from the fire. The mixture is then to be agitated violently, preferably by pumping it back on itself with a force pump. After four or five minutes the mixture suddenly becomes creamy in consistence. If well made, the cream will stand for a long time without free oil rising to the surface. Unless otherwise stated, use 1 gallon of the emulsion to 12 gallons of water in spraying. One quart soft soap or 1 pound laundry soap may be used instead of the whale-oil soap.



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*Cherries*

F. W. BALTES  
& COMPANY



PRINTERS  
PORTLAND





*Baldwin Apples*



Madame Caroline Testout